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RICHARD H. EDMONDS,
Editor and General Manager.

EDWARD INGLE, Managing Editor.

ALBERT PHENIS,
General Staff Correspondent.

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BALTIMORE, MAY 27, 1909.

Mr. C. G. Smith of Brierfield, Ala., writing "as a lifelong tiller of the soil" and expressing his satisfaction with the recent editorial in the MANUFACTURERS' Record on the advance in prices of farm products, says:

It seems to me that you have expressed the gist of the matter. High prices of the different farm products mean prosperity to the class that produces them, and a man or a class of men who make assertions antagonistic to that fact are not well enough acquainted with their subject to discuss it at all. Just here I wish also to thank you for your uniformly kind statements concerning my particular part of this country and to assure you that your works are being appreciated by all the people in this broad Southland.

SUGAR.

Commenting upon a suggestion by the MANUFACTURERS' RECORD that the South should give no encouragement to a project for establishing a great sugar refinery in the South if it involved the annexation of Cuba, our friend, the Norfolk *Ledger-Dispatch*, says:

The establishment of a sugar refinery at the best and cheapest point where one could possibly be located, namely, Norfolk, has nothing whatever to do with the annexation of Cuba.

The MANUFACTURERS' RECORD believes that one of the purposes in making public the project for the sugar refinery in the South was to cultivate a public opinion in the South favorable to the scheme for the annexation of Cuba dating in its origin earlier than the beginning of the war against Spain. We hope that some day a great sugar refinery may be established at Norfolk, as we hope that a great steel plant may be established there. But we hope that in

the founding of such industries shall not be involved the annexation of Cuba brought about by American owners of sources in Cuba of supplies of raw material of any kind that will be given an enormously increased value by the mere fact of annexation, and at the same time will depreciate the value of raw material in this country.

THE GEORGIA PEACH.

In publishing a pamphlet of 20 pages, containing a list of the growers of fruits, vegetables and melons along its line, the Central of Georgia Railway Co. illustrates in a striking manner the growth of diversified agriculture in the South and suggests the great opportunities for further development in that particular. Along the 1916 miles of its line in Georgia and Alabama there are this year 6,143,250 peach trees in bearing, 544,905 that will bear this season, 181,945 that were planted in the fall of 1908 and 71,455 that were planted this spring; 92,580 plum trees, 34,900 pear trees, 3000 pomegranate trees, 2000 cherry trees, 1600 fig trees, 250 Japan plum trees, all bearing, and 2450 pecan trees. There are, besides, 4398 acres planted in watermelons, 2447 in cantaloupes, 200 in Irish potatoes and 397 in other vegetables.

The peach season just beginning calls especial attention to the vast number of peach trees in Georgia and the large holdings of individuals and companies. Perhaps the largest holding is that of a company of Americus, Ga., which has 172,000 bearing trees, 75,000 trees that will come to bearing this season and 100,000 trees planted in 1908. Two other companies at the same place have each 120,000 bearing trees, and there are other company holdings at different points of 150,000, 75,000, 70,000, 65,000 and 60,000 bearing trees, while individual holdings are as high as 140,000 trees each and ranging down through the thousands to 100, and even to 50 trees. It is no wonder that for the next few weeks the Georgia peach will have the call in the country.

IMMIGRATION PHILANTHROPY.

From Rome, Italy, comes a dispatch to the effect that the Italian Government has accepted the offer of an Italian duke of vast tracts of land in Southwest Florida, upon which it is proposed to colonize 5000 refugees from the Messina earthquake territory in Sicily. Another dispatch from Jonesboro, Ark., states that an employee of the Emigration Bureau of the Italian Government has been there arranging, if possible, to place a colony of Italians, and that he will report to the Italian Government as to his observation. What business has any foreign Government to arrange in any way for the settlement of any of its subjects as individuals or in colonies in any part of the United States? Philanthropy is one of the noblest expressions of human nature, but it has its limits. From first to last at least \$1,000,000 have been

sent from this country for the relief of the Italian earthquake sufferers in token of the sympathy of the American people. That sympathy should not be overworked.

THE LUMBER TARIFF.

Three Southern Democrats who voted for a duty on iron ore voted in favor of placing lumber on the free list. Two Southern Democrats who voted against a duty on iron ore voted for a duty on lumber. In the total vote of 56 against lumber going on the free list, 17 were Democrats, and of these 16 were from the South. Another smashing of the fallacy of free raw materials and another lesson for fools who talk and write about the "Solid South."

NATIONAL ROADS CONGRESS.

It is a pity that President Taft, whose name was rather overworked in that connection, did not live up to the report that he received the late Baltimore-Washington "National Good Roads Congress." It would have been interesting for him to meet 2000 "delegates," representing all sections of the country who did not attend the Congress. If President Taft would like to buy some road machinery, we believe that we can quickly bring him in touch with an agent.

ALABAMA.

The volume recently issued by the Department of Agriculture and Industries of Alabama, J. A. Wilkinson, commissioner, ought to be effective in hastening the material development of that State. Into probably no other volume has been gathered as much valuable information about the assets of the State. It contains chapters on cotton-growing as an industry, by Commissioner Wilkinson; public schools in Alabama, by W. C. Swanson, with information about higher institutions of learning; fruits, by W. S. Heikes; forestry, by J. H. Foster; mineral resources, by State Geologist Eugene A. Smith; coal, coke and big iron industries, by William B. Phillips, with lists of coke furnaces, charcoal furnaces, rolling mills and basic open-hearth steel works, cotton mills, coal mines, lumber plants, etc. The resources of each county are discussed briefly by a representative citizen, and, supplementing all, are adequate agricultural, mineral, manufacturing and educational statistics, and a nutshell exhibit indicates a healthy condition throughout the State and vast possibilities of wealth in the full utilization of the riches of the soil, the mines and the water-powers. Men interested in bringing Alabama into its own ought to keep a copy of this volume close to their hands.

C. C. Brown, manager Brown & Harwell, real estate brokers, Kissimmee, Fla., writes to the MANUFACTURERS' RECORD:

We find that an advertisement in your valuable journal always brings results.

GEORGIA: CAUSE AND EFFECT.

Atlanta lawlessness of 1906 was distinctly racial, in that it was vented against negroes as a race and was not an expression against an individual negro for a special crime. Georgia lawlessness of 1909 is distinctly racial in being vented against negro firemen on railroad trains. Neither form of lawlessness is Southern. Heretofore such demonstrations against negroes as a race have occurred only in parts of the country outside the South. In explanation of the disgrace which has come upon Georgia one must recall the fact that an attempt was made in 1907 through a Georgian to develop a scheme to be financed from New York for the organization of a Southern Commission on the Race Question, and that this attempt was allied to the movement now known as the \$43,000,000 Educational Trust, or more popularly as the Ogden Movement, which, when it made its first trial upon the South by way of Georgia in 1902, was told that it would be welcomed by all the State so far as it disregarded the color line. What Georgia has suffered and is suffering is a prophecy of what the South will suffer when it has become enmeshed in the \$43,000,000 Educational Trust by means of conditional gifts to colleges, pensions, etc., having as one of its main announced purposes "to promote education within the United States of America without distinction of race, sex or creed."

POSSIBLE RESULTS THAT WOULD FOLLOW A REDUCTION OF DUTY ON IRON ORE.

The Pennsylvania Steel Company is under contract with the bondholders of the Spanish-American Iron Co. to import not less than 1,000,000 tons of Cuban ore annually. This contract was made when the bonds of the Spanish-American Iron Co., the stock of which is owned by the Pennsylvania Steel Co., were sold to the public last year. Thus, regardless of whether the duty on these ores be 25 cents or 75 cents a ton, this million tons will come into the country. The agreement was that the Pennsylvania Steel Co. would "take and pay for a minimum of 1,000,000 tons of ore annually." The aggregate might run far beyond 1,000,000 tons. There is no condition to the contract with relation to the question of duty. With an estimated quantity of 600,000,000 tons of high-grade ore which can be mined by steam shovels at a very low cost, a duty of 75 cents a ton would no more interfere with the incoming of this ore than would a duty of 25 cents a ton. The contract stands without any loophole, and, as the Pennsylvania Steel Co. is practically owned by the Pennsylvania Railroad and the Reading Railroad, there is ample financial backing to carry out not only this contract, but any other contract that this company might desire to make. This ore is a great bed, covering many thousands of acres. It has no overburden and can be scooped up by steam shovels as easily as could a bed of gravel. A large contractor who has

made a personal study of it says the ore can be put on the cars at a cost of 10 cents a ton for the steam shoveling. The Pennsylvania Company owns 27,000 acres of it, averaging 18 to 19 feet thick and fully tested by thousands of drill-holes.

Mr. Charles M. Schwab in his testimony before the Ways and Means Committee of the House of Representatives stated that the Bethlehem Steel Co. had ceased to use domestic ore and was using nothing but Cuban ore. With a view to the use of Cuban ore the Bethlehem Steel Co. has within the last year or two expended \$17,000,000 or \$18,000,000 in building new furnaces and in the enlargement of its plant. When this vast expenditure was made there was no reason to suppose that there would be any reduction in the duty on iron ore. In fact, Mr. Schwab at the same time testified that Cuban ore could be landed on the Atlantic Coast and carried by rail to Pittsburgh and delivered there as cheaply as Lake ores. His company claims to own as much Cuban ore as the Pennsylvania Steel Co. has definitely proved up, or a minimum of 600,000,000 tons.

These are interesting facts previously published in the MANUFACTURERS' RECORD, but they are worth repeating. With the Pennsylvania Steel Co. committed to the use annually of 1,000,000 tons of Cuban ore as a minimum, and with the Bethlehem Steel Co. spending \$17,000,000 or \$18,000,000 on the enlargement of its plant with a view to using Cuban ores exclusively, these two concerns would necessarily have to consume about 2,000,000 tons of Cuban ore as a minimum. They could afford to do so even with a duty of 75 cents a ton and thus add to the revenue of the Government to that extent. These two vast concerns—one backed by the Pennsylvania and the Reading railroads and the other supposedly backed by Mr. Carnegie—own, according to their own statements, about 600,000,000 tons each of Cuban ore, or in the aggregate about as much as the Steel Corporation is supposed to own in the Lake Superior district, even including the ores leased from Mr. James J. Hill and the Great Northern Railroad. These ores are mined in Cuba by poorly paid labor as compared with the wages of American miners. They are delivered on the Atlantic Coast by water transportation. To the extent of the needs of these two companies these ores will be brought to this country, even if the duty should be 75 cents a ton. Moreover, on all of the finished products made out of these ores and exported there is a drawback of 90 per cent. of the duty on the ores, so that the foreign trade of these two companies, already very large, would reduce the actual amount of duty paid by them to practically nothing on their foreign shipments. A reduction of the duty to 25 cents a ton would simply to that extent increase the value of the holdings of these two companies and give them the whip-handle over the independent iron and steel people who are not so fortunate as to own Cuban ores. It is not at all improbable that if a reduction of the duty on ore could be brought about these two companies might be in a situation to practically force a deal by which the United States Steel Corporation, in order to secure their vast holdings of iron ore, might be willing to pay them almost fabulous prices for their properties. Should this be done, the Steel Corporation would be still further strengthened in its iron-ore holdings and would then have a complete mastery practically of the

world's iron and steel trade, and the independent iron and steel people in the North and West and South would then be able to live only by sufferance. Those who have been favoring free ore or a reduction might in this case be proven by time to have been working, wittingly or unwittingly, for the benefit of the Steel Corporation.

With vast supplies of ore in the South awaiting development, why should this section, or any other part of America, be willing to injure itself by voting for a reduction of the duty on ore simply to benefit the Pennsylvania and Reading railroads as owners of the Pennsylvania Steel Co. and the Bethlehem Steel Co., which, judged by all indications, is being financially backed by Mr. Carnegie? On the strictly revenue-producing basis, a fairer basis of duty on iron ore would be 75 cents a ton instead of 25 cents. The Pennsylvania Steel Co., the Bethlehem Steel Co. and their allied interests, who are working for free ore for their own profit, regardless of the welfare of others, are injuring the whole iron and steel trade of the country by giving ground for the growing feeling that the duty on finished products should be reduced just as largely as the duty on the ore. They stand to lose far more in this way than they will gain by a reduction on ore, unless, perchance, their fight should result in forcing the Steel Corporation to buy them in order to control their ores. This would be a disaster to the whole country, for every section would feel its dire effects.

POSTAL BANKS NOT NEEDED.

To anyone at all familiar with the numerous and extensive facilities in the United States for taking care of money saved by the people a proposition to enlarge further and expand those facilities by means of a postal savings bank system seems grandly superfluous and wholly unnecessary. All sorts and conditions of savings banks exist on every hand in most places, and practically everywhere, every one of them seeking deposits from one dime upward. The people save money too rapidly for some of these institutions, which fix a limit upon the amount that may be deposited therein in any one month, but most of them receive deposits at all times, paying interest thereon, and for the most part taking good care of funds entrusted to them. Savings banks are as a rule safeguarded by suitable laws, and the millions of depositors therein, constantly increasing in number, testify to the public confidence in them by swelling the volume of deposits with great steadiness.

To establish postal savings banks here would be little more than to fulfill the requirements of a fad, yet the claim of a former Postmaster-General that our savings banks are unequal to the task of caring for all the savings of our people, and that therefore postal savings banks are necessary, has lent some weight to the argument, even though it be no more than the avoirdupois of official sanction—which to some folks is sufficient reason for doing almost anything. Apropos of this assertion, William Hanhart, secretary of the savings bank section of the American Bankers' Association, has handed to the chairman of the committee a letter bristling with statistics about savings banks, which, had they been read by the former Postmaster-General, would doubtless have shown him the folly of doing something equivalent to "carrying coals to Newcastle." This letter embodies an interesting mass of information,

much of it not to be found in Government reports upon the subject. Mr. Hanhart shows, taking into consideration the various methods of caring for savings, that the purely savings money in the United States amounts to \$9,463,411,488, an enormous total, it is true, but here is how he accounts for it: In savings banks reported by the Comptroller of the Currency, \$3,660,553,945; in the savings departments of State banks, trust companies and in private banks, besides in other savings banks, none of which are included in the Comptroller's report, \$1,508,720,391; in the savings departments of national banks and not included in the Comptroller's report, \$331,562,680; in building and loan associations, \$745,993,398; in life insurance companies (assets), \$3,159,581,074. These figures account for the savings of well-nigh ten thousand millions of dollars, as shown in the above total. Here are represented approximately (some estimating being unavoidable) 48,271,899 depositors, including life insurance policy-holders, and 24,750 institutions receiving the deposits. The foregoing includes all the moneys assembled through school savings banks, which amounts to about \$744,904, due to about 178,000 depositors. Of course, the figures here presented as to the number of depositors involve some duplications, as, for instance, of individuals having savings in one or more banks and perhaps one or more life insurance policies.

Besides, there are other forms of savings, such as the small investments in securities or in real estate. These are purely savings, although the investments are made in larger sums than are usually deposited in savings banks. Their amount is, of course, impossible to figure out, but the small investors—often, if not always, salaried people—make it a habit to live within their incomes and to save something for a rainy day.

Truly it would seem strange if, with all these various facilities at hand for taking care of our surplus earnings, we found it necessary to adopt a postal savings bank scheme to encourage thrift among our people. Are not the foregoing statistics sufficient evidence to establish conviction in the minds of readers that prosperous habits are well founded in the United States? They should be ample for unprejudiced minds.

FAME.

"Full many a flower is born to blush unseen and waste its fragrance on the desert air" will hardly apply to the people of the United States if they grasp the multiflora and multitudinous chances for prominence that are offered to them by almost every mail and at small expense per individual. One of the most recent of these chances is in membership in an organization in process of evolution by way of New York, of course, which is to be "limited to 4000 members throughout the United States" and to be "composed exclusively of representative citizens in different localities who have distinguished themselves in some important department of our national activities, whose record is clean and deserving of public confidence and esteem. This membership is not designed to be merely a Roll of Honor," but an organized effort to remedy social and political evils by supplementing this Government of the people with a civic body representing the combined Intellect and Conscience of the entire nation, which has never yet asserted itself politically in this country."

Through this body "the Wisdom and Experience of the ablest shall be placed at the service of the nation." Reinforcement of the inducements here set forth appears in the following:

This organization is patriotic, independent and absolutely non-partisan, and our membership includes the foremost citizens in every State of the Union.

And the moral of it all is in the following:

P. S.—Kindly fill in the enclosed application blank and send it with your check [that means \$10 in payment of annual dues] to our Treasurer at your earliest possible convenience, as we have only a limited number of vacancies in your State.

Some humorist might suggest that there is in nearly every State an unlimited number of "vacancies" of one kind or another to whom such an invitation might appeal. Ten dollars is such a small price for admission to the body of exclusively representative citizens in different localities, foremost citizens in every State of the Union and the combined Intellect and Conscience of the entire nation. But the serious-minded man is bound to protest against any suggestion that it would be possible to select any 4000 individuals who could by any possibility represent the combined intellect and conscience of the entire nation.

But it is doughnuts to dollars that four thousand times ten dollars will be quickly assembled from the combined intellect and conscience of the entire nation and that they will be spent in accordance with the following:

The membership dues are for the purpose of defraying current expenses of the Organization and the payment of the traveling expenses of those delegates to the National Convention from each State and Territory of the United States who are unable to meet such expenses from their private purse.

As the members, by their willingness to pay \$10 a year for admission of their names to the Roll of Honor of the most foremost citizens of every State of the Union, would naturally have plenty of dollars to pay their traveling expenses to the national convention in New York of the combined Intellect and Conscience of the entire nation, it is fair to presume that those \$40,000 will go toward "current expenses."

FREE.

Mr. William L. Douglas, in a letter urging admission of hides and leather to this country duty free, says:

There seems to be a well-grounded fear that if hides and leather are retained on the dutiable list it will only be a short time before the beef trust will accomplish the organization of a shoe-manufacturing monopoly in connection with their present tanning monopoly.

Free hides and free leather are only half-way devices. If they are made free, shoes and other products of leather should also be free of duty.

S. C. Dowell, real-estate broker, Walnut Ridge, Ark., writes to the MANUFACTURERS' RECORD:

As a subscriber to the MANUFACTURERS' RECORD for the past 15 years and a close and careful reader of its interesting and educational columns, I wish to state that I consider it the biggest and best, as well as the most useful and reliable of all trade journals published in this or any other country. Its mission in the upbuilding and uplifting of our Southern country cannot be computed by mere dollars and cents. No business man, firm, factory, corporation or industrial plant can well afford to be without this journal, where on the desk, counter and the shop a weekly resume may be had of the South's industrial, commercial and material development.

The slogan of the South's progressive business man should be: "The MANUFACTURERS' RECORD; to keep thoroughly in touch with the stirring events of our commercial and industrial age."

SENATOR DANIEL'S TARIFF KEY-NOTE.

Senator Daniel of Virginia sounded a note in the course of the tariff debate that might well be the key to action by his colleagues. He said:

A fighting chance in life is the great thing that equitable and honest minds desire to have. In any fair fight—and the tariff all over the world is becoming a fight—that does not involve oppression, greed, sharp practice or something of the sort, I stand in all things on the side of the American. It is a natural instinct of a patriotic man to do so, and he ought to do so. When you go to building five and six-story tariffs, with towers and steeples on the top—specific, cumulative, compensatory, ad valorem, prohibitive, and all that—I must speak to them, examine, and when they overpass what is just, fair and equitable to the American man I vote against them. Show me what the just thing is, and I do not care what name you call it, I am for it. Conjurers sometimes use the names "protection" and "free trade" without distinctive meaning.

I observe, too, that there are large tendencies toward free trade in this body. It is not unnatural that there should be, whatever may be the motive actuating the minds that move toward it. For instance, I see we are told by some that we must put everything upon the free list which is controlled by a trust. If we should adopt that as laying down a primary, elemental and moral law with which to proceed, we should play right into the hands of a great many of the largest and most onerous trusts. General principles defining the large relations of government are the only things that have any permanent home in platforms, and the only ones that ought to get lodgment there at all. Going into refined schedules, which may be shifted by tomorrow's invention, or a chemical or a mechanical process, or by a complete turn in the course of trade, is merely reckoning without your host. It is in the great general lines that have divided men since the Revolutionary War that men most differ, and that men may more properly differ. Each side is in some degree right; and in finding the balance is the great operation of inquiry of the human mind, which will lead us to that which is highest and best.

Two main points were here emphasized by Senator Daniel. One is the necessity for a full realization of the meaning of terminology. Senator Daniel showed his disregard for mere words when he said that he did not care what name was given it, provided a thing was just to the American man. One of his fellow-Senators from a Southern State gave an exhibition of confusion as to terms when he argued that putting a tax on a foreign substitute for tan-bark extracts was a menace to American forests, or, stating it inversely, that free trade in forest products would be protection for American forests. As he announced in the beginning of his speech that he had some ideas of his own, this Senator was probably uninfluenced by the literature circulated as of the National Forest Conservation League, but, in its advocacy of free trade in lumber, obviously voicing the interests of controllers of timber lands in Canada. But his argument was, nevertheless, on a par with the contention in behalf of Canadian lumber interests and reflecting the real impulse of the National Conservation Congress at Washington a year ago. Out of that swelled the demand from divers interested quarters for "free raw materials" for industry which, if granted, would benefit the owners, whether American or not, of such raw materials of foreign origin and the companies transporting them to this country, but would cripple American producers of American raw material, and all without lowering the price of the finished articles.

This "free raw material" cry bears directly upon Senator Daniel's second point, that putting into effect in some cases the policy of free trade would have a result exactly contrary to that intended. Nothing could be better cal-

culated to further a design for control of the sources of a raw material for industry in this country by a would-be monopoly than the placing upon the free list of such raw material which it owns in other countries producing more cheaply than this country. That such ownership might be concealed under the form of a foreign corporation would make no bit of difference to the American producer. The point made by Senator Daniel should put other Senators upon their guard lest they play right into the hands of the very influences they would curb.

GASOLINE BOATS AND RECLAMATION.

Louisiana has nearly 2000 miles of waterways, not including the Mississippi, the Ouachita, the Sabine and the Red rivers. On many of these streams steamboats never travel, but gasoline boats have recently been operated upon them with profit to their owners and satisfaction to the public, according to a report of the State Railroad Commissioners to Governor Sanders. They add:

The greatest development of the gasoline-boat trade has been in the smaller bays and canals. There are several lines operated from New Orleans, out through Company's Canal, into Bayou Lafourche, and through private canals into lower Bayou Terrebonne, Lake Salvator and its tributaries. These smaller craft are making their appearance at many of the important towns of the State, nearly all of which are located on or in the vicinity of navigable streams. The reports which have been received indicate a steady increase in the tonnage of freight handled by these smaller boats, and a regularity and frequency of service superior to that furnished by some of the larger boats. Their operating expenses are reduced to a very small amount by the use of gasoline engines, and the fact that the owner and his family usually constitute master, pilot and crew as well. They vary from 5 to 200 tons burden, and usually only traverse a territory which can be covered in a day's run. They are essentially freight carriers, having no accommodations for passengers and not offering rates for their transportation. Their importance in creating competition, which means lower rates, is scarcely yet recognized in the commerce of the State, but it will eventually more greatly be felt than any other single factor in securing from the railroads voluntary and permanent reductions in rates. Their light tonnage enables them to operate in waters too shallow for the successful operation of steamboats. No complaints come to the commission against these crafts except from the railroad companies upon whose "territory" they have encroached.

These developments in Louisiana are suggestive of a great expansion in transportation facilities that will be possible upon the completion of drainage canals through the millions of acres of land in that State still awaiting reclamation for agricultural purposes. Connection of the drainage canals with natural waterways will work convenience in many directions. The canals will not only reclaim the land, but will be the means of ready access to markets for products of the soil and of communication among the occupants of the land. And when is completed the intercoastal canal, extending from the Rio Grande through Texas and Louisiana and along the coasts of Mississippi and Alabama, and connecting the main waterways of all those States, the gasoline boat is bound to become an important factor in the prosperity and progress of that section.

Mr. Alvin M. Smith of the Smith-Courtney Company of Richmond, Va., secretary-treasurer of the Southern Supply and Machinery Dealers' Association, writes to the MANUFACTURERS' RECORD:

On behalf of the members of the Southern Supply and Machinery Dealers' Association I beg to express to you my thanks for the

splendid notice which you gave our Chattanooga convention.

Secretary Cad Allard of the Chickasha (Okla.) Commercial Club, in remitting for eight subscriptions for members of the club, says:

Our people look upon the MANUFACTURERS' RECORD as the best proposition in the way of business stimulator of its kind in the United States, and that, of course, includes the earth, and we are going to prove our appreciation of same during the year.

MOHONK HUMORISTS.

They are rare birds for quip and merriment, those Mohonkers, especially the constituents of the Lake Mohonk Peace Conference, now 15 years old. In the midst of the world turmoil involved in the benevolent assimilation, by the twin leaders in Anglo-Saxon civilization, Great Britain and the United States, of peoples too weak to defend themselves, the Mohonk Peace Conference perpetrated the first joke of the twentieth century by solemnly taking the position that it would not discuss the evils of warfare close under its nose. That has been matched, though, by the resolutions adopted by the Conference last week. They included the statements that, meeting on the tenth anniversary of the opening of the first Hague Conference, the Mohonkers review "with profound satisfaction the signal advance of the cause of international justice during the decade, a progress unexampled in any previous period in history," and that the Government of the United States has been "so conspicuously and so honorably identified with the progressive policies of The Hague," backed up by the following:

"The great armaments of the nations, whose intolerable burdens prompted the call to the first Hague conference, have during the decade increased so portentously as to have now become, as recently declared by the British foreign secretary, a satire upon civilization. They fill the world with apprehension and alarm; they create an atmosphere unfavorable to the system of arbitration, and their drain upon the resources of the people has become so exhausting as to menace all national treasures and disastrously check the so-called reforms and advances which the interests of humanity demand."

The humor in these resolutions shines forth when one recalls the fact that the meeting of the first Hague Peace Conference coincided with or immediately preceded two or three of the most disgraceful wars that have cursed civilization, and that the United States not only was conspicuously identified with the disgraces, directly in the Orient and indirectly in South Africa, but is also an indisputable leader in the perpetration of the satire upon civilization exemplified in the great armaments burdening and menacing the peoples of the world.

Between 1897 and 1909, the year of the first Hague Peace Conference, the disbursements of money by the United States Government increased from \$35,267,563 to \$213,758,713 for the military establishment, not including expenditures for rivers and harbors or for salaries and expenses at Washington, and from \$34,561,546 to \$63,942,104 for the naval establishment. Between 1897 and 1908 such disbursements for the military establishment, the naval establishment and for pensions increased from \$210,882,273 to \$417,612,367, or at the rate of 98 per cent., while the total disbursements increased from \$365,774,159 to \$659,196,319, or at the rate of only 80 per cent. Conspicuous identification with the progressive policies of The Hague for peace has increased in 10 years the expenditures by the United States Government for warlike undertakings from less than a quarter of a billion

dollars annually to nearly a half a billion dollars annually.

Seriously, it is difficult to decide which is more influential, The Hague Conference as a promoter of war, or the Mohonk Conference as a preventer of peace. Meanwhile, the Wrights and the Zeppelins are leading the way to the conversion of navies into junk heaps and armies into honeyards. Hasten the day. But what would Brother Smiley do then?

PIG-IRON IN 1908.

Though not a single State produced as much pig-iron in 1908 as in 1907, the output in 1908 having been the smallest since 1901, Alabama, Tennessee, Illinois and Virginia, in the order named, were proportionately the slightest sufferers among the important pig-iron-producing States, according to an analysis of the statistics made by Dr. William Taylor Thom of the United States Geological Survey. He shows that the losses in 1908 as compared with 1907 in output and value by chief producing States were as follows:

Alabama, 289,000 long tons, 17.17 per cent.; \$12,759,000, 42.39 per cent.; Tennessee, 102,000 long tons, 26.02 per cent.; \$3,531,000, 46.82 per cent.; Illinois, 765,000 tons, 31.15 per cent.; \$22,094,000, 42.30 per cent.; Virginia, 158,000 tons, 33.07 per cent.; \$4,385,000, 48.92 per cent.; California, Colorado, Missouri and Washington, 155,000 tons, 33.17 per cent.; \$5,669,000, 48.75 per cent.; Indiana, Michigan, Minnesota and Wisconsin, 261,000 tons, 34.48 per cent.; \$10,140,000, 53.85 per cent.; Pennsylvania, 4,361,000 tons, 38.43 per cent.; \$123,567,000, 52.50 per cent.; New York, 640,000 tons, 38.58 per cent.; \$17,218,000, 52.02 per cent.; New Jersey, 147,000 tons, 39.61 per cent.; \$4,184,000, 55.39 per cent.; Ohio, 2,389,000 tons, 45.51 per cent.; \$59,034,000, 55.48 per cent.; Kentucky, Maryland and West Virginia, 536,000 tons, 64.60 per cent.; \$12,097,000, 71.86 per cent.

The decrease in the whole country was from 25,781,361 tons to 15,936,018 tons in quantity, and in value from \$529,958,000 to \$254,321,000.

OFF THE TRACK.

Referring to the attitude of some friends of the president of the University of Virginia toward his Lee oration upon the occasion of President Taft's visit to Petersburg, a Virginia newspaper says:

"These intimates laughingly accuse the university president of trying to win back the Daughters of the Confederacy who recently were vexed with him because of the awarding of the prize in that much-disussed Lee essay matter. And they say that Dr. Alderman not only attempted this diplomatic move, but that he succeeded beautifully."

That joke of unnamed intimates is a pretty rough one, as it turns upon the suggestion that Dr. Alderman would conjure by means of the name of Robert E. Lee or that the intelligence of the Daughters of the Confederacy is below par. That joke does not comprehend the question at issue. The question intelligently raised by the Daughters is not one of Dr. Alderman's ability to pronounce an oration upon Robert E. Lee, or, indeed, upon two or three other subjects, but of the characteristics and distinguishing marks of a historical essay. It is not a question of rhetoric, not a question of sentimentalism, but a question of practical judgment based upon knowledge and perspective.

FIE!

Is it fair to the Contributing Editor? Here *The Outlook*, without a line of explanation, publishes 15 pages of an article and illuminates its front cover with its title, "In Africa, A Hunting Experience" by W. S. Rainsford.

INDUSTRIES AT DANVILLE.**Two Notable Advances in the South Side Virginia City.**

[Special Cor. Manufacturers' Record.]
Danville, Va., May 22.

The progress and activities in manufacturing and industrial circles here have been marked recently by two important events—the reorganization of the Westbrook Elevator Co. on a larger and more substantial basis and the decision of the Dan River & Manufacturing Co. to expend a million dollars or more in improvements and additions to its already large cotton mills at Schoolfield, a suburb.

The reorganization of the Westbrook company was the result of the growing business of the concern, which has begun to assume large proportions. An amendment was recently secured to the charter, and at a meeting of the stockholders several days ago the following officers were elected: A. B. Carrington, president; J. J. Westbrook, vice-president and superintendent; W. J. Westbrook, assistant superintendent and manager of sales department; W. E. Griggs, secretary and treasurer; directors, A. B. Carrington, W. R. Fitzgerald, R. A. James, J. Pemberton Penn, J. J. Westbrook and J. W. Perry. All of the officers and the directors are substantial business men and capitalists of Danville except Mr. Perry, who is from Norfolk. The capital stock is \$250,000, divided into \$150,000 common and \$100,000 preferred. All of the stock has been subscribed except \$50,000 worth, which will not be offered for sale, but retained in the treasury for future developments as the business grows. The Westbrook Elevator Co. has grown rapidly from a modest beginning. Many years ago the late Joseph B. Westbrook operated a small-scale foundry and machine and repair shop. His two sons, J. J. and W. J. Westbrook, officers in the new company, grew up in the business, succeeding to it upon the death of their father. It was only about 10 years ago that the company branched out into the elevator business. The Westbrook brothers were both of an inventive turn of mind, and are owners of many valuable patents for elevators, both passenger and freight. Elevators made here are sold throughout the United States and in Canada. The new and modern building erected a few years ago on Spring street will be enlarged from time to time as occasion demands.

The preliminary work of erecting the additions to the Dan River Cotton Mills has already begun, and when completed the total number of spindles in operation will reach between 138,000 and 140,000. The finances for the improvements were raised at a recent meeting of the stockholders, at which the capital stock was increased from \$3,000,000 to \$3,500,000. The \$500,000 additional stock has all been disposed of. The other money for the enlargement is taken from the surplus. The additional plant will be known as mill No. 3, which will be three stories in height, with a basement, and running about 300x500 feet. Mill No. 3 will accommodate about 45,000 spindles and about 1500 looms. In addition to the main building, there will be erected a dyehouse, machine shops and clothroom building, three and four stories high and 75x100 feet. The plans for the new buildings were drawn by Lockwood-Green Company of Boston, and the contract is in the hands of John T. Wilson & Co. of Richmond, the price being \$350,000 and the date set for completion January 1, 1910. Mr. Wilson is in the city giving his personal attention to the work.

The capacity of the present steam plant, which has 2000 horse-power, will be doubled. The mills are operated by elec-

tricity generated by water-power from Dan River, supplemented by steam-power. As a result of the enlargement of the steam plant all danger of interruption in the operation of machinery in case of either too high or too low water is eliminated.

The success which the cotton-mill industry in Danville has met with has been remarkable. The Riverside Cotton Mills, the parent industry, and owned today by practically the same interests as the Schoolfield mills, were established 27 years ago. The stock of the Riverside company has since its organization paid 10 per cent, and carried a good sum annually to surplus and for betterment until the surplus is now more than \$1,000,000. The combined capitalization of the two mills is \$5,500,000 and the combined surplus \$1,750,000. The combined number of spindles in operation after the new additions are completed will be about 215,000.

The Schoolfield mills have been in operation about seven years, and, like the riverside mills, have never suffered any setbacks. Even during the recent panic there was neither suspension nor curtailment of production. On the contrary, the local plants worked full force, full time, and noted no diminution in the demand for its products.

One of the most noteworthy enterprises of the Dan River mills was the establishment last year of a bleachery, which has proved wonderfully successful. For many years the New England spinners boasted that the Southern mills could not bleach their products satisfactorily, and therefore could not compete with the Northern industries on this grade of cloth. The construction of the bleachery here has completely exploded the New England ideas, and many of the patrons of the Schoolfield mills have expressed preference for cloth bleached here over that bleached in any other part of the country.

The principal officers of both the Riverside and the Dan River mills are the same, being R. A. Schoolfield, president; John H. Schoolfield, vice-president, and H. R. Fitzgerald, secretary and treasurer.

In the construction of the new mills at Schoolfield a new and beautiful town was laid out. It now has a population of about 5000, principally employees of the cotton mill. The residents reside in comfortable homes convenient to and from work, with admirable natural drainage, pure air and abundant water. All of the homes are supplied with water, and many with electricity. The cotton-mill owners have fostered religious and educational institutions, and have practically built and helped maintain at their own cost a number of churches, public schools and a hospital. The town adjoins Ballou Park, one of the largest and most attractive in Virginia, and just within the corporate limits of the city. Schoolfield is connected with Danville by a trolley line, and is only a few minutes' ride. The erection of the additional mills will mean the employment of about 1000 more operatives. Contracts have already been awarded by the mills for 50 new homes, and contracts for 100 more will be awarded at an early date.

JOHN M. HERNDON.

Into Virgin Coal Fields.

[Special Cor. Manufacturers' Record.]

Barbourville, Ky., May 23.

Surveys have been completed for the Cumberland Northern Railway, the new line projected to extend through undeveloped coal fields of Eastern Kentucky, and the company is now acquiring rights of way. Property-owners along the proposed route are co-operating in the matter. The new line will extend from this city, where it will connect with the recently extended Cumberland Valley Rail-

road to Beattyville, Lee county, a distance of about 70 miles. Tennessee capitalists are interested in the project and have secured a vast acreage of coal and timber lands in Clay, Knox and Owsley counties, through which the route will stretch. The Clay Mining & Manufacturing Co. has been organized as a holding concern.

The Cumberland Northern Railway has been surveyed through a territory every acre of which contains rich seams of coal, both above and below drainage, and which constitutes an undeveloped coal field on which capitalists have long had their eyes. The most logical route to enter this territory has been chosen by the railroad company, and there is an excellent prospect that the country will be opened for development at an early date.

The general coal-development condition of this situation shows a gradual improvement, and by the middle of July a marked improvement is expected. Operators in the Kentucky-Tennessee-Virginia districts have had a very bad season during the past winter, and many mines have been idle a part of the time. Some operators have availed themselves of the dull period by expenditures in additional equipment, and will be prepared with more modern methods when normal conditions are restored.

The Hughes-Jellico Coal Co. of this city, with plant in the Ely Hollow district, has begun the installation of an electric plant which will cost about \$8000. This addition will result in an increased output, with smaller labor expense.

Kentucky operators have begun the erection of a coal-mining plant on the Louisville & Nashville Railroad, near this city. The blue-gem seam will be mined. Shipments will start within two months.

W. S. HUDSON.

Literary Notes.

Nicholson on Factory Organization and Costs. By J. Lee Nicholson. Publishers: The Kohl Technical Publishing Co., New York. Price, \$12.50.

In this day of vast profits derived from the saving of what were once regarded wastes, practically scientific organization of factories has come to be regarded as of fundamental importance in industries.

Technical and popular magazines have published hundreds of articles bearing upon the subject, and some volumes on the same line have been issued. This work of Mr. Nicholson, however, is encyclopedic. It is a volume of 48 chapters, filling, along with 387 illustrations, more than 400 quarto-pages. The principles and workings of costs outlined in it are based upon an experience in installing and supervising in the course of 20 years several hundred cost systems, covering almost every line of manufacture, and in compiling complete data the author has availed himself of a complete library of cost-accounting literature. The several chapters, with their elaborate forms, treat of organization and cost finding, wage systems, analysis of cost and accounting, distribution of indirect expenses, forms and systems, designs and explanations, purchase requisitions, purchase orders, report of material received, stock record, production order, material requisition, time tickets, payroll and distribution sheets, production reports, cost records, defective work report, statement of factory expenditures, operating ledger, billing system, register of sales and costs, accounts payable, vouchers, register of accounts payable, check voucher, cash systems, drawing, pattern and equipment records, inventory of material forms, sales report and analysis, financial status and earnings, estimated cost system, departmental cost system, special order system, product system and

mechanical office appliances. Designed primarily as a handbook for manufacturers who are interested in modern methods of organization and systems for accountants and cost specialists and also as a textbook on cost accounting for the student, the work outlines and explains the best known methods of factory organization as related to cost finding in such a manner as to enable the manufacturer to compare these methods with those in use in his own plant for the purpose of discovering possible defects and remedying them.

Internal Combustion Engines. A reference book for designers, operators, engineers and students. By William M. Hogle, B.S. Publisher, McGraw Publishing Co., New York. Price \$3.

This work does not disregard the importance of excellent books of reference treating of the internal combustion engine from a theoretical standpoint, and it is suggested that while many of these books, beyond reproach as exponents of theory, fall far short in the matter of present practice and modern designs, it would be well to supplement the use of this book with any one of several works on the gas engine, in order that the mathematical side of the subject may not be slighted. The aim of this work has been to eliminate as far as possible the more involved mathematical formulas, and to deal principally with the more practical and applied phase of the subject. Different manufacturers have placed the results of practical tests at the disposal of the author, who has used only such information of the kind as appears most reliable and in keeping with actual practice. An introduction briefly sketching the history of experiments with the internal combustion engine is followed by chapters on practical operation, starting devices, carburetters, vaporizers and injectors, producers, fuels and combustion, compression, the indicator card, general dimensions, the cam mechanism, the valves and ports, the cylinder, flywheel, the frame, the crankshaft and reciprocating parts, governing devices, ignition, engine testing, report of tests, etc.

Commercial Law Simplified. By Chas. C. Simons. Publisher, the Business Man's Publishing Co., Detroit, Mich.

The great need of a legal assistant, such as this book affords the business and professional man, has for a long time been unsatisfied. The work is compiled in question and answer form, and indexed to provide the most convenient reference. The complexities of difficult business problems, enterprises, ventures, controversial and vexed questions demand some knowledge of the law to successfully master. The book is in simple and comprehensive language and will be found of great value to accountants, credit managers and salesmen who are called upon at times to determine the legality of certain actions and decisions. The book is handsomely printed and unusually well bound, containing over 500 pages.

The Business League of Clarksdale, Miss., is working to secure for that city a brick plant, a tile factory, a cotton mill, a rope or twine factory, woodworking plants and a dairy. It points to the opportunities for such industries in the city's contiguity to cotton, hardwood timber and fertile lands, and to building and drainage operations.

The Mayor's message and official reports of the departments of the municipality of Augusta, Ga., have been published as the City Council Year Book, giving a comprehensive survey of the improvements made during 1908 and of general municipal conditions.

STEEL CORPORATION AND THE SOUTH.

[Written for the Manufacturers' Record.]

Mr. George Wilfred Pearce, civil engineer, a well-known writer on industrial topics, in a letter to the MANUFACTURERS' RECORD takes the ground that the United States Steel Corporation did not make a judicious selection of location when it decided to build its vast iron and steel enterprise now under way at Gary, and, after reviewing the Gary situation as it appears to him, he says:

"With respect to its Southern affairs, the policy of the Steel Corporation seems to be a drifting one. No Southern man seems to have any strong hold upon the steering committee of the corporation, which more and more is getting into the powerful control of men strongly committed to the upbuilding of the Chicago and Duluth districts. One reason, among others, for the large expenditure for the Duluth iron and steel enterprises is because of the belief of some of the directors of the United States Steel Corporation that bye-and-bye the public opinion of the Dominion of Canada will turn against the policy of bounties for iron and steel and against high protection for its home manufacturers of iron and steel in favor of free trade as to American iron and steel and other products. * * But let the polity of the Steel Corporation be what it may with respect to Gary and Duluth and the Pittsburg district, the inexorable logic of events will compel that corporation to make sound progress in the development of its Southern properties.

"Profound dissatisfaction with the polity in being of neglecting the Southern properties is manifesting itself in cogently reasoned and strongly expressed verbal and written matter put before the executive board of the Steel Corporation by very powerful domestic and foreign financial and commercial interests which have enormous possessions in the Southern States, and are as much concerned for the promotion of the material uplift of the South as certain very rich men on the directorate of the Steel Corporation are engaged for the development of the material resources of Gary and Duluth.

"One of the most striking manifestations of the material advancement of the nation today is the solidarity of the larger financial, commercial and industrial interests of the Southern States, which is effecting a basis for the rearing of a structure of commercial greatness that will dwarf into insignificance the interests of the Northwest, which are handicapped by the long season when winter seals the commerce of the Great Lakes. The years are not far away when the lake iron-ore mines that are shut off from low-cost transportation from late November until late in April will not supply, as for some years past, almost 75 per cent. of the iron ores consumed within this country. The South, where iron ores and fluxes and fuel for the iron and steel works can be mined and shipped at low cost every day, will ere long be the larger factor in the supply of the raw materials for the making of the 35,000,000 tons of pig-iron which the nation will need not later than 1920 if the growth of population for a decade be commensurate with the increase of population in the last 10 years. The late Henry H. Rogers, who among the directors of the United States Steel Corporation was the best informed on Southern commercial and industrial matters, often said that many of the Western industrial plants and a number of the Western and Northwestern railroads had been built under what might be termed artificial conditions by combinations of New

England, New York and European capitalists who years ago became committed to a polity of Western and Northwestern development, because they had moved from a logical position of owners of large possessions in timber and agricultural possessions to a point where they had to build railroads and factories in order to induce settlers for their parcels of land. But as lands have been put up to prices in the West whereunder many farmers have sold out and gone to the East and South, being able to buy land in New York State at lower prices than in Iowa, he thought that these signs indicated that a great boom in Southern agricultural lands was not far away, whereunder enormous crops of cereals would be cultivated along the lines of a number of railroads built with the purpose of serving the cot-

ton, lumbering, fuel and industrial interests. In building the Virginian Railway Henry H. Rogers said at a number of meetings of Steel Corporation officers he had looked far into the future for the benefit of his children and his children's children, who would see the South take her rightful place as the richest and most highly developed part of North America. In all that related to the making of iron and steel Mr. Rogers often said in New York at the meetings of great capitalists that the policy of the United States Steel Corporation should be to greatly develop its Southern properties and slow down in production from certain Northern and Western properties, which should be worked until the plants had depreciated to the value of materials for the scrap piles, and then be disposed of under the hammer, as was done with many iron and steel plants in New England when the Pittsburg district began to forge ahead 50 years ago."

sequent improvements and the growing crop, whether that be vegetables or a fine orange orchard. This does not apply to drained lands, as a proper preparation to start with precludes a subsequent failure of ability to drain, and should a mistake be made in preparing for drainage the original investment in the land improvements are still in the hands of the investor, and he has only to correct the original mistake. Then again, drained lands are usually lands which have been filled by the sediment of surrounding country and the subsequent and long-continued vegetation forming enormous deposits of humus, and therefore the richest lands to be found. One analysis of the humus from one of these Southern Louisiana swamps showed that it was worth \$6.50 per ton as fertilizer, the calculation based on the comparative amount of plant food contained in this and commercial fertilizer at \$30 per ton.

Furthermore, under the most favorable conditions one man can irrigate but a small tract of land, and when it is irrigated it is left in small divisions caused by the irrigating ditches and ridges, and then must be kept constantly cultivated to keep it from baking and evaporating. This does not apply to drained lands. When proper preparations are made one man can constantly drain 1000 acres of land, and I know of one tract of 250 acres that has been in cultivation for 15 years without a drainage ditch or levee through it, the outside ditches and levees being all that is necessary for its drainage, and leaving it in condition for extensive cultivation as other large fields are cultivated, and is still producing equal to river-bottom lands without the use of fertilizers in all these years.

My opinion is that the coast lands of Southern Louisiana lying along the Southern Pacific Railroad, for health, fertility and marketing facilities combined, are unequaled by any other section of the United States. Their intrinsic value is evidenced by the fact that some of those who have these lands for sale are willing to sell them to satisfactory purchasers without any cash payment down, applying one-half of the crop to the purchasing of the land until the land is paid for, and releasing the purchaser from any personal responsibility for the purchase price of the land other than the one-half of the crop referred to, so that a man may use what capital he has entirely for the production of crops without personally going in debt, and if he subsequently becomes dissatisfied with his purchase he is at liberty to leave the purchase without losing any original cash purchase payment or feeling obligated for any balance of purchase money. Only the best lands and conditions will stand such sales as these. As a further evidence of their value, the State of Louisiana has authorized the organizing and bonding of drainage districts, so that the drainage may be carried on at the least expense and greatest advantage to the party whose land is drained.

The enormous profits that can be made here in citrus fruits would astonish the Northern farmer. Then, too, his stock in the winter can live without feed on the range here, and by sowing winter vetch with oats or rye he can not only have winter pasture, but he can cut crops of hay in April of from two to four tons an acre and then raise more general crops during the summer and fall than he can produce on his Northern farm. It is true that the summer seasons are warm here longer than they are in the North, but this enables a man to produce more than he can in the North. The thermometer never runs as high during the summer; the Gulf breeze gives universally cool nights, and the salt air renders the climate healthy and bracing.

Paradis, La.

Drainage and Irrigation: Comparative Results.

By JEWETT ALLIN.

[Written for the Manufacturers' Record.]

At your request I reiterate, in substance, our conversation relative to the comparative costs and benefits of irrigating arid or desert lands and draining swamp lands in general, and particularly those on the Gulf coast of Southern Louisiana.

One of the most unfortunate things that can befall a person is to fall heir to a lot of wrong impressions. No matter how easily one may become possessed of these ideas or impressions, it often requires the best part of a lifetime, if not several generations, to get rid of them sufficiently to be in a proper state of mind to receive and profit by the real truth concerning the subject under consideration. For instance, my dear father, who is now dead, and my father-in-law, now some eighty-odd years old, each as young men got the idea that the swamps of Southern Louisiana were badly malarial, and, in fact, disease-breeding cesspools. They never recovered from the bite of these false impressions, and it required 25 years of my life to learn better.

People are coming to these swamps, and some of them working in the rice fields in water ankle to knee deep and others working in the cypress swamps in water knee to waist deep, and, as a rule, all improve in health, especially those who observe the same care in regard to healthful living which they observed before leaving their former homes. It is a known fact that people come here from Colorado and elsewhere for rheumatism and consumption and general debility, and, as a rule, get well. Only last week I heard some capitalists planning to establish a sanitarium in one of these swamps.

Now, in regard to irrigating lands. Granting that you have an abundant supply of water, which will not give out in dry seasons, if it is surface supply, or that will not be exhausted by multiplying the wells if it is artesian, or that will not ruin your land if the supply contains alkali or other detrimental substances, and that you have all arrangements made for taking care of your supply of water, it will on an average cost about \$5 an acre per year to distribute this water over your land and crops; besides this, most all irrigated lands are at considerable distance from water carriage for freight, and therefore they must depend on the railroads entirely. In that case, every cropper has two silent partners who seldom put in their claims until he comes to sell his crop. They are the railroad and the commission man, and they seldom leave the cropper a succession of profits exceeding a fair living, but the

DEVELOPMENT AT MACON.**Utilization of Natural Resources Basis of Progress.**

[Special Cor. Manufacturers' Record.]

Macon, Ga., May 22.

Richly endowed with natural advantages, and well provided with the means to take advantage of them, Macon, Ga., is showing a remarkable growth. The city has been called the Central City of Georgia from its geographical position at almost the center of the State, and this favorable location has made it the logical distributing point for an extensive territory.

Macon is a picturesque city, covering an area of seven square miles, with an approximate population of 43,000, which will be increased to about 58,000 when the outlying suburbs are annexed. Its residential section, built on the hills partially encircling the city, is made up of many beautiful homes. The building record of 1908, showing construction work valued at \$344,000, and the first three months of 1909 aggregating \$170,000, are evidences of the city's substantial growth.

It has been estimated that 75 per cent. of the railroad mileage of Georgia reaches Macon, and in addition to this, two steamers ply on the Ocmulgee River between this city and the port at Brunswick. The extensive development of railroads caused the gradual neglect of water communication, so that the river until recently had ceased to be used as a highway of trade. The Macon & Brunswick Navigation Co. last year built and equipped two steamers, which are in operation between Macon and deep water. This line affords excellent transportation facilities for a large portion of the most fertile territory in the State. A network of railroads radiate from the city, including the following lines: Central of Georgia, Southern, the Georgia, the Georgia Southern & Florida, the Macon & Birmingham and the Macon, Dublin & Savannah. The Central of Georgia connects Macon with many important cities, including Chattanooga, Atlanta, Savannah, Birmingham and Montgomery. The Southern Railway runs to Brunswick, Jacksonville and Atlanta. The Georgia Railroad operates the line from Macon to Camak, Ga., where connections are made for Atlanta and Augusta. The Georgia Southern & Florida extends from Macon to Jacksonville and Palatka, Fla. Macon is brought into communication with Lagrange by the Macon & Birmingham Railway, and with Dublin by the Macon, Dublin & Savannah Railroad.

Nature has been lavish in her bestowal of rich gifts on the country surrounding Macon. The soil is very fertile and the climatic conditions are excellent, this combination being conducive to the excellent farming results which are obtained throughout this section. Peach orchards of vast extent, extensive cotton plantations and productive farms are thriving here. Macon occupies the enviable position of being one of the most important interior cotton markets in the South. Within the circle with Macon as a center and a radius of 75 miles, nearly one-half of the short-staple cotton of the State is grown. The advantages offered by proximity to this and other supplies of raw material and excellent transportation facilities have been taken advantage of by the establishment of diversified manufacturing enterprises. An incomplete list of industries actively engaged here includes cotton and knitting mills, cottonseed-oil mills, lumber manufacturing plants, iron and machine works, fertilizer factories, brick manufacturers, a sewer pipe and pottery plant, ice plants and wagon and buggy manufacturing plants.

The J. S. Schofield's Sons Company operates an extensive plant here. The

buildings cover seven acres of ground, and are examples of substantial modern construction. They include a two-story office and storehouse, 80x225 feet; machine shop and foundry, 80x250 feet; boiler shop, 80x475 feet; blacksmith shop, sheet-iron and pattern shop, pattern storehouse and power-house. The company manufactures heavy-duty engines and high-grade boilers for all kinds of mills, towers and tanks, stacks, standpipes and plate work, and carries a large stock of machinery, including boilers, center-crank and side-crank engines, belting, pulleys, shafting and general mill supplies.

The Massee & Felton Lumber Co.'s plant, one of the best-equipped in the South, has a frontage of 2000 feet and covers 50 acres of land, 20 acres of which are used for the sash, door and blind factory and planing mill. This new factory is a model of modern fireproof construction. This company uses six carloads of lumber each day in the manufacture of finished products, and as high as 360,000 feet have been used in one week. The raw material is supplied by two sawmills in South Georgia in the long-leaf pine timber region. About 50,000 feet of lumber is made at each of these mills per day, where a specialty is made of heavy dimension timber, railroad material, as stringers and trestle material, car sills and car siding. The company recently acquired a hardwood stumps consisting of 200,000,000 feet, situated on the Ocmulgee River. The amount of timber in this tract will be sufficient to supply a mill cutting 50,000 feet per day for 15 years. The company's holdings in pine timber aggregate about 100,000,000 feet, and the investment in its various plants, its timber lands and leases amounts to \$1,155,000. The value of its output for 1908 was \$320,000.

The H. Stevens' Sons Company maintains an extensive plant here, where large quantities of sewer and railroad culvert pipe, fire-brick, milled clay flue pipe, chimney tops and urns are manufactured.

The Hall & Parker Construction Co. has completed some important construction work in the South. At present it is engaged in erecting the new shops for the Central of Georgia Railway. The Macon, Dublin & Savannah and the Georgia railroads also have their shops here. Some of the other important enterprises are the Mallary & Taylor Iron Works, the Findley Iron Works, the Gant Manufacturing Co., the Willingham Manufacturing Co., the Virginia-Carolina Chemical Co. and the Central City Ice Co., whose plant has a capacity of 350 tons daily and a storage capacity of 15,000 tons.

Macon has many municipal advantages conducive to the health, comfort and convenience of its citizens. Some of these are: Excellent public schools and colleges, six and one-half miles of broad, paved streets, well-kept and well-drained roads, fine banking facilities afforded by nine financial institutions whose total capital is about \$1,425,000, 48 miles of water mains, 47 miles of sewer, a street railway system operating about 33 miles of trackage, and churches of many denominations.

One of the most interesting features in connection with the future growth of Macon is the great water-power development on the Ocmulgee, Flint and Oconee rivers. This project, which is being engineered by the Central Georgia Power Co., when brought to a successful culmination will be the means of furnishing between 100,000 and 150,000 horse-power. One of the dams will create a lake covering 3600 acres, or six square miles, and will give a head of water 100 feet high.

The Chamber of Commerce is alive to the potentialities for development offered here in all forms of endeavor, and under the able leadership of their hustling secre-

tary, Mr. H. Burns, an active campaign is being waged to increase the organization's membership, and thereby to raise funds with which to spread broadcast information which would be interesting and profitable to the manufacturer, investor and homeseeker. The other officers of this organization are: J. F. Heard, president; T. D. Tinsley and A. J. Long, vice-presidents, and H. Burns, secretary and treasurer.

A. WILLIAM FIELD.

Durham Plans.

[Special Cor. Manufacturers' Record.]

Durham, N. C., May 24.

At the banquet which the Merchants' Association of this place will give in honor of the directors of the Erwin Cotton Mills Co. on June 18 will be considered the plan of placing this city upon the main line of the Seaboard Air Line. The plan is to extend the road from Moncure to Durham, now on a branch line, and in this way save 20 miles between Henderson and Hamlet. It is understood that the Seaboard has recently made surveys to that end.

The Pythian orphanage committee has recommended Durham as the location for the institution to be determined by the Grand Lodge next fall. The building will cost \$70,000. As an inducement for location here, O. K. Proctor of East Durham has given 25 acres of land, has sold 25 acres more at half price, and the committee has an option of 15 acres more. Durham's lodges gave \$1500, the Merchants' Association \$1000 and the city raised about \$7000 for the project.

The Christian Construction Co., which has been organized during the week for concreting, steel and excavation work, has already received a contract at Richmond, Virginia.

Mr. V. S. Bryant has sold his place on North Mangum street and has now the plans for a handsome new residence on Morehead Hill, the handsome residential section of the city.

W. T. BEST.

A Texan County's Resources.

[Special Cor. Manufacturers' Record.]

The Cass County Industrial League,

Atlanta, Texas, May 13.

Atlanta and Cass county are taking on new life industrially. Lying in the rich timber, mineral and fruit belt of Northeast Texas, the town has many advantages. The county has an abundance of pine and hardwood timber. The hardwood timber has not been touched. Much pine has been cut and put upon the market. Our hills are full of iron ore. It is undeveloped. Some of it is being shipped to Jefferson now. Only about 25 per cent. of the land of the county is in cultivation. Fine farming lands may be had very cheap. At Atlanta, the principal town in the county, recently has been organized the Cass County Industrial League, for the purpose of publishing to the world our natural advantages. Bonds have been voted for water-works. Work will begin on a water system at once. Negotiations are under way for securing natural gas by tapping the Caddo-Texarkana pipe line, which passes within seven miles of Atlanta. Much of the county is included in the gas field of Caddo. One of the recent finds is large deposits of glass sand. It analyzes: Silica, 99.14 per cent.; oxide of iron, .36 per cent., and alumina, .45 per cent. Its analysis says that it will be all right for window or plate glass.

J. L. LOVELACE, Secretary.

The Georgia Retail Hardware Dealers' Association has elected Messrs. E. E. Dekle, Valdosta, president; R. W. Hatcher, Milledgeville, and G. W. Woodruff, Winder, vice-presidents, and C. A. Stewart, Helena, secretary and treasurer.

Southern Iron & Steel Co.

Announcement has been made in New York of the election of directors and officers of the Southern Iron & Steel Co., which was incorporated in March with a capital stock of \$17,000,000—\$10,000,000 common and \$7,000,000 preferred. This completes the reorganization (under the plan announced last May) of the Southern Steel Co., owning extensive iron furnaces, rod mills, coal and iron mines, etc., in Alabama, Georgia and Tennessee. The directors are Messrs. James T. Woodward, Cornelius Vanderbilt; Alexis W. Thompson, president Inland Steel Co.; Kenneth K. McLaren, Franklin Q. Brown of Redmond & Co., R. B. Van Cortlandt of Kean, Van Cortlandt & Co., Walter T. Rosen of Lindenburgh, Thalmann & Co., D. G. Boissoeain of Kean, Van Cortlandt & Co., R. T. Wilson, Jr., W. W. Miller of Hornblower, Miller & Potter, all of New York; W. H. Hassinger of Birmingham, Ala.; W. P. G. Harding, president of First National Bank, Birmingham, Ala.; William B. Denton, Cecil O. Grenfell of London, England, and T. S. Kyle, vice-president First National Bank, Gadsden, Ala.

W. H. Hassinger was elected president; James T. Woodward, chairman of the executive committee; W. W. Miller, vice-president; A. R. Forsyth, secretary and treasurer, and D. G. Boissoeain, secretary of the executive committee and assistant secretary and treasurer of the company.

It is understood the company will arrange for the early operation of its various properties.

El Reno Packing Plants.

[Special Cor. Manufacturers' Record.]

El Reno, Okla., May 21.

A large packing plant has just been located here, and there will be established large yards for the free use of buyers of stock. The Chamber of Commerce is negotiating with two other large packing plants with a splendid chance of getting them. The city is paving 162 blocks of streets, and street-car lines are being established.

H. S. ENGLE.

Cheering.

[Wilmington (N. C.) Star.]

The Baltimore MANUFACTURERS' RECORD is without a doubt the best-informed publication on the Atlantic seaboard as to industrial and trade conditions in the East, and it is gratifying to note in its issue of this week cheering information in the reports proceeding out of the great industrial centers.

Nashville Banner's Review.

In its issue of May 22 the *Banner* of Nashville, Tenn., presents an interesting and comprehensive review of the city's industrial, commercial and social growth. The publication devotes three large sections to the review, and, besides the descriptive data, publishes a number of photographic views illustrating the progress of the city.

Municipal Building Design.

[Special Cor. Manufacturers' Record.]

Raleigh, N. C., May 26.

Raleigh Municipal Commission bought for \$25,000 site for municipal building and auditorium to seat 5000, and invites designs by architects for \$100,000 building.

F. A. OLDS.

Interstate Crushers.

The Interstate Cottonseed Crushers' Association at its Memphis meeting elected Messrs. A. B. Allen of Little Rock, president; B. F. Taylor of South Carolina, vice-president, and Robert Gibson of Dallas, Texas, secretary-treasurer.

American Cotton Manufacturers at Richmond.

[Special Dispatch to Manufacturers' Record.]

Richmond, Va., May 26.

The thirteenth annual convention of the American Cotton Manufacturers' Association, held here this week, will go on record as one of the most important held by that organization, in that definite action was taken on matters of the utmost importance to its members.

These results included the adoption of resolutions bearing upon reports of committees on uniform sales contract and the inducing of the New Orleans Cotton Exchange to make certain changes in its rules covering future contracts.

These matters were in the hands of two committees appointed at the convention held last year, viz., committee on uniform sales contract, Lewis W. Parker, chairman, and committee on cotton exchanges, Ellison A. Smyth, chairman.

The committee on uniform sales contract held frequent meetings during the year with representative men in the industry, and also with a similar committee appointed by the National Association of Cotton Manufacturers. The American Association committee was disposed to go into more detail than the committee of the National Association, but, realizing that to make a uniform sales contract that would be most effective it must be generally adopted, the American Association committee modified its views and accepted the recommendations of the National Association. The following resolutions on the subject were adopted:

Resolved, That the report of the committee on uniform sales contract, defining the allowable variations from nominal specifications of width, count and weight, and recommending a form of contract sales note for gray goods be adopted and approved by this association, and that the board of governors be given power to act for this association in accepting any changes deemed necessary and recommended hereafter by the committee.

Resolved further, That the committee on uniform sales contract be continued and reappointed with the view to fostering the practical recognition of the specification standards recommended of the report and the practical use of the sales note form, as well as to recommend any changes to the board of governors that may be found necessary or advisable as a result of practical use."

The committee on cotton exchanges visited both the New York and the New Orleans Cotton Exchanges. No changes desired by the association were made by the New York Cotton Exchange, but the New Orleans Cotton Exchange made changes which in a great measure comply with the recommendation of the Federal Government and of the association. Among the most important changes made are the following:

The adoption of a system of certification of grades carrying with it the official guarantee of the New Orleans Cotton Exchange and the permanent identification of each and every bale.

Classification by a salaried board of expert classers having no other interest in the cotton business, such board to grade cotton only.

The creation of an improved board of appeals.

Improved arbitration of irregular and staple cotton.

The compulsory use of the official standard of the Exchange (which ultimately is to be the Government standard) by the board of classers.

The adoption of a strict good ordinary clause, or its equivalent.

Perpetuation of the commercial or market grade difference system as always enforced at New Orleans.

The exclusion of all low-grade, tinged and stained cotton from grades tenderable on contract.

Resolutions were adopted expressing appreciation to the New Orleans Cotton Exchange for meeting the wishes of the association, but regretting that the New York Cotton Exchange could not see fit to do so.

On the recommendation of the same committee it was resolved that the telegraph companies be requested to give better and more direct service between New Orleans and Southern points for the benefit of those who wish to do business with the New Orleans Cotton Exchange.

Several marked changes were made in arranging the program for this year's convention proceedings, these being the reduction of the number of papers and the following of most of the papers by discussions on the part of members. The discussions were the special value, in that members were able to ask questions, interchange ideas and thus bring out many interesting points on the various subjects.

In the discussion on cotton waste manufacture E. W. Rooney of the Whiting Machine Works told how his company was perfecting equipment for saving cotton manufacturers 60 cents to \$1.25 per spindle by a treatment of its waste cotton, and dwelt at length on the advantages that would accrue to cotton manufacturers of being able to utilize this cotton waste to so much better and more profitable results.

Harvie Jordan of Atlanta, Ga., discussed the great importance of better baling and handling of cotton, and stated that the same methods were now being used that had been employed for the past 100 years, the only improvement being in rapidity. He pointed out that the only way to bring this about was for the cotton manufacturers to complain to the growers and insist on better bales. Mr. Jordan said that both the Southern Railway and the Illinois Central had agreed to allow reduced rates on gin-compressed cotton, and that New England manufacturers had practically agreed to pay a premium of \$1 a bale for each gin-compressed bale of the proper density.

The program included an address of welcome by Mayor D. C. Richardson of Richmond, with a reply by Col. L. D. Tyson of Knoxville; the annual address of President T. H. Rennie of Pell City, Ala., and addresses on the development of foreign cotton goods trade, by R. L. McKellar of Louisville, assistant freight traffic manager of the Southern Railway; on cotton waste manufacture, by W. A. G. Clark, special agent of the National Department of Commerce and Labor, with a discussion led by E. H. Rooney of the Whiting Machine Works; on baling and handling cotton, by Aug. W. Smith, president of the Union Buffalo Mills Co., Spartanburg, S. C., with a discussion led by Harvie Jordan of Atlanta, president of the Farmers' Gin-Cypress & Cotton Co.; on the tariff on cotton textiles, by D. A. Tompkins, president of the D. A. Tompkins Company, Charlotte, N. C.; on the relation of national and State forests to the conservation movement, by John H. Finney of Washington, D. C., secretary of the Appalachian National Forest Association, and reports of the committee on uniform sales contract, by L. W. Parker of Greenville, S. C.; of the committee on cotton exchanges, by Ellison A. Smyth of Greenville, S. C.; of the committee on by-laws, by Charles H. Gorton of Aragon, Ga.,

and by the secretary and treasurer, C. B. Bryant of Charlotte, N. C.

Among the diversions arranged for the visitors by the business interests of Rich-

mond through the Chamber of Commerce were a smoker in the Auditorium Hotel, where the convention was held, and a trip down the historic James.

ANNUAL ADDRESS OF PRESIDENT T. H. RENNIE.

A survey of the year just passed reveals the existence of peculiar and unusual conditions. If the present tendencies of business were such that the influence of this period could be said to have ended, that a turning point had been reached, and that from this day onward developments could, with some degree of accuracy, be described as positive or negative in their character, the task of submitting my annual report would be a much easier one than I take it to be. My ideas of the situation are fortified by the fact that the money market offers funds in large amounts at attractive rates, and that, despite such favorable inducements to the borrower, no ready outlet can be found among merchants and manufacturers. Until American enterprise and ingenuity can find profitable employment for our available cash, we may consider that we are still marking time with faces turned midway between the panic of the past and the prosperity of the future.

No small part of our present uncertainty can be ascribed to pending tariff revision. Our national economic history shows that tariff adjustments, whether upward or downward, have the same temporary influence upon trade conditions. It is characteristic of the race that, while ready to bravely face and overcome known dangers and handicaps, some timidity is shown where the opposing forces are uncertain in their magnitude and direction. With the tariff question settled I look for marked improvement in all lines of trade and commerce. Very happily for us, the schedules bearing upon the textile industry do not present the wide divergence of expert and political opinion that has been shown elsewhere. This is due to the fact that the cotton industry in this country bears a very remarkable relation to the tariff, so that it combines every republican principle of protection with every democratic theory of revenue. I think it can be taken for granted that the cotton schedule of the Payne-Aldrich bill meets with the general approval of our organization.

Organization is the spirit of the age, and our existence has been amply justified by results accomplished. For several years the question of reforming the future contract has been a live one among our members. It cannot be doubted that the recent action of the New Orleans Cotton Exchange was in a large measure due to our agitation. It is equally true that the new rules so wisely promulgated will be of vast benefit to the producer, the manufacturer and the consumer of cotton. This question will be fully presented to the convention by our committee which has been at work upon it for the past two years.

I deem it proper at this time to read some extracts from the very able and exhaustive review of the new future contract rules by Mr. W. B. Thompson, president of the New Orleans Cotton Exchange.

"The New Orleans Cotton Exchange has recently adopted certain changes in the future contract and in the rules governing deliveries under the same. These changes, not only in the opinion of the members of the exchange, but in the impartial, but critical, judgment of the Commissioner of Corporations of the Department of Commerce and Labor of the Federal Government, will secure to the trader fair treatment and satisfactory results, and to both the cotton producer and the manufacturer the great benefits of a just and uniform system of future trading.

"The changes mentioned were adopted

by the members of the exchange after the whole subject had been thoroughly considered and discussed during a period of more than four months by a committee of 17 members made up of the best-informed cotton merchants, who represented every branch of the cotton trade; after the committee had invited and received suggestions from the planters, the spinners and from the several Southern cotton exchanges, and after Mr. Herbert Knox Smith, Commissioner of Corporations, who, under Congressional resolutions, had recently made an exhaustive and searching investigation of the cotton exchanges and of the faults in the modern system of future trading, had pronounced his unequivocal approval of the findings and conclusions of the committee. The future trading department of the exchange will, therefore, under the new rules, be conducted along lines approved by the best-informed experts in the cotton business and sanctioned by an executive department of the Government of the United States.

"The cardinal significance of the changes mentioned lies in the public acknowledgment by the exchange of its obligation to the public, or to that part of the public which trades through the exchange, or to those whose interests are affected by the trading carried on under its rules. Corporate arrogance and disregard of the interest and rights of others, not stockholders or members of the corporation, is not only wrong in point of business morals, but unwise in point of business policy. The Cotton Exchange willingly acknowledges its obligation to the producer of cotton to so use its power that the producer may realize the full value of his product; it recognizes its obligation to the manufacturer to lend its aid to the bringing about of stable and uniform market conditions, to the end that he may conduct his business with profit to himself and to the advantage of the consumers of his product; it recognizes its obligation to all traders to secure in so far as lies within its power a fair, just and equitable market for buyer and seller alike; it recognizes that it has no interest that is in opposition to the best interests of the cotton trade at large, but that it will thrive and prosper only in so far as it fulfills its proper function and discharges its duty and obligations to the cotton trade; and, finally, in order that it may so perform its proper function and so discharge its duty and obligation, it takes counsel of all who, by reason of interest or experience, are entitled or qualified to point out the mistakes of the past and to advise present and future betterment, and upon such criticism and advice it bases its conclusions and formulates its plans. The rules which shall make operative these conclusions and plans are in the process of preparation, and will at an early date be put into use and effect."

The committee on uniform sales contract will make a very complete report of its work, with recommendations growing out of its investigation of this vital subject. This is a matter of so much importance to every manufacturer of cotton goods that I would suggest that the reception of its findings be set as a special order at a stated time, so that a large attendance of delegates may be assured. I cannot urge upon you too strongly the necessity of a free expression of opinion from those present, and express the hope that this convention will not adjourn without some definite action upon the question.

The problem of adequate labor is not

serious at this time. With the growth of industrial enterprises in the South such as is certain to follow in the future, ways and means must be devised to divert to this section the tide of immigration which is now seeking homes where the opportunities for success and happiness are not so wide as here.

In passing, mention should be made of the report of the committee of the International Federation of Master Cotton Spinners, which recently visited America. Their statement that European mills need not fear American competition so long as our labor was paid the higher relative wage scale it now receives is significant. This handicap we must strive to overcome by some method other than wage reduction. We must aim to raise the level of American efficiency in our mills, so that our higher wage is warranted by a corresponding increase in individual output. This can only be accomplished by widening our educational facilities along technical lines, so that the American workman is better equipped to gain and maintain our manufacturing supremacy.

Without going into detailed statistics,

COTTON WASTE MANUFACTURE.

By W. A. G. CLARK, Department of Commerce and Labor.

In the manufacture of cotton goods some waste is unavoidable, and what is the most profitable plan for disposing of such waste, whether to rework with good cotton, to rework by itself or to sell outright, is one to which American manufacturers are paying close attention. Part of the waste made in a mill is "invisible waste" that is a dead loss, but there is more or less money in every pound of "usable waste." The larger percentage of the American mills seem to sell the bulk of their usable waste to be either manufactured elsewhere in the country or abroad. A large number of mills rework a good portion of their waste by mixing with new cotton, but in such cases, even when running into low-grade 6s or 8s, about 50 per cent. of waste is as heavy a mixing as is usually practicable. In a regular waste plant practically the entire waste output of a mill from the motes to the hard waste can be worked with little or no new material. Whether it will pay better to rework the waste made with a large percentage of new cotton or to run it straight by itself in a special plant is a question that depends on several different factors, but as a rule there will be found to be more money in a special plant, especially in times of depression, when the lowest grades of waste that cannot be reworked in the regular cotton mill are bringing prices that hardly justify the expense of hauling away for fertilizer.

The manufacture of waste is a separate industry in itself, and, except for very large mills, it will not pay the management to install a special plant for this purpose, but if six or seven large mills in a locality combine in building and operating a waste mill it should prove the best solution. Intelligently managed, waste spinning is an operation that well repays the trouble entailed.

Cotton waste manufacturing plants are modeled on the system used in woolen plants. In the system of drafting that is used in regular cotton manufacturing it is necessary that the fibers be of approximately the same length, otherwise the long fibers are broken, while the short ones drop through. This difficulty is met with in the case of short-fibered waste mixed with new cotton, entailing much waste in the process, and every time this is run through again its cost is increased. The woolen system of manufacture is specially designed to deal with fibers of widely vary-

the cotton crop of 1908 measured up to what had been anticipated, affording a sufficient quantity of unusually fine staple to meet all present demands. From progress thus far made it is not unreasonable to hope that the new crop will approximate its immediate predecessor. The level of prices now enjoyed by the producer must sooner or later react upon finished goods, bringing advances which yield a more agreeable profit to the manufacturer. In conclusion, I wish to thank the members of the association for the honor conferred upon me in being chosen its president, and to express my appreciation of their hearty co-operation in making the year of my administration a profitable one to all concerned. I should not neglect to refer to the fact that this is our second meeting at Richmond in a period of two years. Those of us who were present in this delightful city in 1908 and who so well recall its manifold hospitalities and pleasures were eager to again accept their courteous invitation to meet here upon this occasion. With our past experience to guide us, I need not fear my reputation as a prophet by promising each and all of you a very enjoyable convention.

get the cheapest mixing to make satisfactory yarn of the grade required without excessive waste is one of the most important requirements of a manager. Usually the waste is mixed before opening, but sometimes afterwards.

Waste is always double-carded, and sometimes triple-carded, the latter being especially used for numbers around 8s or higher. The woolen roller and clearer card is essential for this work, and the cotton card with its revolving top flats is not applicable.

In the economical use of by-products and in waste manufacture the Germans are ahead of either England, the United States or France, but with the progress that the United States is making along this line it is hardly probable that this can continue long. The English mills in manufacturing cotton waste seem to use the coiler system most largely, while the bulk of the German mills seem to prefer the condenser.

In 1907 the German waste mills, besides using their home production, imported 60,391,225 pounds of linters and 72,379,360 pounds of general cotton-mill waste. They ran part of this waste straight and part they mixed or interwove with cotton, wool, jute, silk or other textile fibers, making cheap hosiery and underwear, blankets, carpets, backing for clothes and fleece-lined underwear, candle wicks, cretonnes, cheap twilled sheets, sanitary napkins, scrubbing cloths, tapes, cords, coarse towels and many other articles. Of the waste exported by the United States, Germany takes the larger portion, and part of this waste after manufacture goes to the Philippines in the shape of cheap blankets and underwear, and part is even shipped back to the United States in coarse manufacture as cheap scrubbing cloth, towels and dishrags.

BALING AND HANDLING COTTON.

By MR. AUG. W. SMITH, Spartanburg, S. C.

Of course, this is a very important subject to the manufacturers, and one that we have paid little attention to, and covers a great many different heads.

We can start with the seed that are used in planting by the farmer. For years I don't think the farmer ever thought of improving his seed, but in later years there have been a good many experiments, and the more wide-awake farmers are beginning to test their seed before planting, or that is to plant a few rows of special seed and save out the best stalks and bolls on the stalks for another year's planting, and gradually building up the staple and body of the lint. The only way that we could get the farmers to pay attention to their seed is by being more careful in our grading and sampling of the staple, and by paying a little advance on the better staples.

Of course, cotton for ordinary use in numbers running from 13 to 40 an inch staple is sufficient, and after that the staples are paid more attention to.

We ought to encourage this and try to get them, by talking and discussing this point every chance we get with the farmer, to use seed that will produce more uniform staple. For several years they have been planting in many sections, more or less, a cotton called "Florodora." That on up-lands produces a longer staple than the ordinary cottons, but the great trouble is there are no gins to gin this cotton, and it is carried to the ordinary gin and ginned right after or before a bale of ordinary cotton, and some of the seed get mixed with the ordinary seed, and the next year the seeds are planted and the staple is mixed all through the man's crop, and then when we undertake to put it into yarn we have the trouble of cockle-yarn, which we all

know is a great drawback to making even, nice-running cloth.

The gathering of the crop is another point that ought to receive attention. The only feasible way that has ever been found is gathering by hand. In all meetings of this kind and all papers that are written on this subject we ought to pay particular emphasis to trying to get the farmer to gather his crop as quickly as it opens.

The ginning and baling of cotton is the most important point that we must consider. This subject was considered at length at the Second International Conference of Cotton Growers, Spinners and Manufacturers, held at Atlanta, Ga., October 7, 8 and 9, 1907. They passed several resolutions and discussed the different kinds of bales, and after two days' discussion I don't think they had gained a point. It is impossible for us to say to the farmer, "you have to put your cotton up in a certain kind of bale or we will not buy it," or to say to the transportation company, "you have to haul certain kinds of bales or we will not receive it." There are too many interests and too many men that get a little rake-off to change the mode of baling and handling cotton too rapidly. All that we can do is to recommend and discuss and try by a plan of education to improve these methods.

At that meeting a great deal was said about the different bales of cotton, and several photographs were produced showing how cotton was put up in Egypt, in Mexico, in East India and America. The American bale was the poorest-packed bale, the worst-looking bale of all others except the Mexican bale. The Egyptian bale was decidedly the nicest-looking bale, and showed less waste than any of the others. I would suggest that we try by

resolution to emphasize the importance of the farmer using a press, putting up their cotton as near the shape, density, thickness, weight and covering of the Egyptian bale as possible. They use a lighter material or burlap for covering, and they use a great many more ties, which prevents the cotton, when cut between the ties for sampling, from falling out, and prevents dirt getting in the cotton as it does in our loosely-packed American bale.

I think one of the most important points in this connection is the matter of the manufacturers selling their second-hand bagging and ties. We think we are making money by selling this waste, but in fact we are paying more the next year for this bagging and ties than what we get for them, especially the plan of fixing up the bagging and ties into patterns and selling them that way. I think it would be a good thing if we could get the manufacturers to all agree that they would not sell any bagging and ties in patterns, but would only sell to concerns by the pound that would tear up the old jute and reweave it into new bagging.

If you have ever noticed on the floor of your warehouses where it has been emptied of cotton the amount of cotton that has been left on the floor and has to be swept up, you will see the immense waste that this old second-hand bagging is producing. There has been such complaint by consumers of American cotton of the careless methods of baling and wrapping, unnecessary waste, deterioration in quality, and great danger from fire, that the Government, through the Department of Commerce, has issued a bulletin with reference to this subject, and in this bulletin they recommend very strongly the baling and wrapping of our cotton like the Egyptian and Indian packages.

Of course, it would be a great thing if we could get the ginners to put in the gin compresses, but what are you going to do with the present mode of compressing cotton by the railroads? If we could gradually get these gin compresses put in I believe that the rate on cotton would be materially lowered if we could cut out the expense of compressing and still enable the railroad to haul as many bales by this new process of compressing as the present compressed bales, but this, of course, is going to take time, and all that we can do is to continue to recommend, and in a few years we will see quite an improvement in this line.

One of the most important points in the handling of cotton is the mode and manner of buying and selling. The cotton manufacturers of South Carolina have been for years trying to perfect rules for buying cotton, and we have from year to year improved these rules, and now we have a form of rules known as "The Carolina Mill Rules," or rules adopted by the Cotton Manufacturers' Association of South Carolina and the Cotton Manufacturers' Association of North Carolina. I think it would be of great benefit if we, as a national association, could adopt uniform rules for the purchase of cotton.

I would suggest that a committee be appointed to get up rules for buying cotton to be used by all of the members of our association. All that I think we wish is fair treatment, and I know there will be some opposition to this on account of some of our members being cotton merchants and cotton sellers, but I believe it would prevent a great deal of misunderstandings, and in the long run would prove of great benefit.

I have not touched on the matter of handling cotton through the mills, and the saving of waste and the handling of waste, which are just as particular points as any that have been mentioned, but are points

that long papers could be written on and ought to be considered separately.

I have not gone into details, for this paper is to introduce the subject and bring

out details in the discussion, and have, if necessary, the proper committee appointed to work out the different suggestions and report back to the association.

THE COTTON GOODS TARIFF.

By D. A. TOMPKINS of Charlotte, N. C.

The present duties on coarse cotton goods, such as are made in the South, are necessary for the maintenance of the factory system. The factory system is necessary to the welfare of the Southern cotton farmer and incidentally of all the people in the cotton-growing States.

It has already taken enough people out of the business of raising cotton to make the price of cotton double what it used to be. It has given good values to perishable farm products, such as vegetables, fruits, chickens, eggs, milk, butter, etc., by the markets the factory population makes for them. It helps by taxes to provide good roads, which, in turn, enhances the value of land and of markets. Now that we have the factories, everybody is better off than they used to be when everybody was raising cotton at five cents a pound.

The reason why the present duties are necessary is that England has over us the following advantages in cotton manufacture:

(1) She has an army of textile workers having an inheritance of special knowledge and skill.

(2) An abundance of labor which does not shift.

(3) A merchant marine whose ships take the goods from the mill door via the Manchester ship canal to all parts of the world.

(4) Abundant capital and cheap interest rates.

(5) A Royal Exchange in Manchester, the center of the English mill district, where the buyers of the world meet the mill men and trade direct.

(6) A banking system which extends into the market centers the world over, which gives safety to credits and safe exchange.

(7) We have no advantage in the price of cotton. It moves in subsidized English ships from Galveston and other American ports and is delivered at the mill in Manchester, England, as cheap as at Fall River or Charlotte.

England's advantages may be estimated as follows:

(1) Inherited knowledge and skill.....	$2\frac{1}{2}\%$
(2) Abundant cheap labor.....	$2\frac{1}{2}\%$
(3) Merchant marine (subsidies).....	5 %
(4) Abundant cheap capital and cheap interest rates.....	$2\frac{1}{2}\%$
(5) Royal exchange.....	5 %
(6) Banking system in foreign commercial centers.....	$2\frac{1}{2}\%$
(7) Raw cotton.....	0
(8) Difference in labor costs.....	10

According to these estimates, England has a distinct advantage of 30 per cent. over us, and this percentage becomes much greater in the coarser numbers. It is very important that the Southern farmer and manufacturer co-operate to hold the tariff on coarse cotton goods at the present figures.

Before the development of the factory system in the South everybody made cotton, and with the competition of everybody in the field cotton went to five cents a pound, and well-nigh ruined the Southern cotton farmer. The development of factory has called for factory operatives, and this has taken many cotton farmers out of the competition. It is not alone that the cotton competition has been reduced, but the factories of the South are now consuming more than 2,000,000 bales of cotton. This is not all. Besides taking a great number of people off the farms, and besides consuming 2,000,000 bales of cotton in the factories, a demand has been made for at least \$100,000,000 perishable farm products per year. This means that the

farmers get \$100,000,000 for their vegetables, fruits, milk, butter, chickens, eggs and all such stuff for which farmers formerly had no market at all. If we go back to a period approximately 15 years ago, before the factory system was developed, we find that cotton was five and six cents a pound, and that the entire cotton crop was worth \$300,000,000 when the Southern people did nothing but make cotton and sell it in a raw state. Now, by the development of the factory system and by the development of diversified crops, including dairying, fruits and vegetable, the South has a gross income at least four times \$300,000,000. In the first place, the cotton crop is now bringing 10 and 12 cents, instead of 5 and 6 cents. This makes for 10,000,000 bales \$600,000,000 instead of \$300,000,000, as formerly. Besides this doubling of values in the raw cotton itself, the South has now other incomes approximately as follows, and annually:

The cotton-oil industry yields more than.....	\$100,000,000
Perishable farm products consumed locally, which formerly had no market.....	50,000,000
Perishable farm products shipped to Northern markets, formerly not shipped.....	50,000,000
Extra value of 2,000,000 bales of cotton manufactured instead of sold in raw state.....	150,000,000

and many other advantages by the diversification of pursuits.

The total manufactured products of cotton consumed by the United States would not exceed those made from 4,000,000 bales of cotton. If we put a tariff on these products that would raise the price two cents a pound, the total increased price for all the people of the United States would not exceed \$40,000,000. We have seen above that protection would be justified for enhancing the value of the raw crop itself \$300,000,000, and Europe has to pay at least six-tenths of this enhancement. We have also seen that we gave active values to perishable farm products, also increased values to the manufactured products of cotton itself of more than \$200,000,000. We pay \$40,000,000 bonus to make a profit of nearly \$100,000,000 on what formerly yielded only \$300,000,000 would seem to be a good enough commercial transaction.

I have pointed out the disadvantages under which American cotton manufacturers labor as compared with England. With these disadvantages equalized we have seen what immense additional values we can get out of our lands and our factories. I hope to see the unequalled conditions removed when we get ships upon the deep seas, banks to handle our commercial business in the markets of the world and some selling arrangement equal to the Royal Exchange of Manchester and other points, as explained above; then we may accomplish all this without a tariff, but until then we have need to maintain the tariff.

The duties now being paid on imported cotton goods aggregate about \$50,000,000. This is a fair amount of revenue for the cotton goods trade to pay toward the support of the Government. Neither wheat nor corn pay approximately as much. In other words, cotton goods are paying a good part of the Government expenses, while corn and wheat are not paying their proportionate part. There are many who write fanatically on this subject who berate against all tariffs. These totally ignore the fact that the tariff is but one of the taxes by which the Government gets revenue for expenses. In the present situ-

ation any discussion of other methods for raising revenue is wholly academic. Our Federal revenue system is largely a tariff system, and we are compelled to make laws in recognition of that fact.

There are some tariff items which are wholly wrong. Prohibitory duties from which no revenue comes may be wrong or not. If no public service is accomplished by such duties they are wrong, but if the safety or welfare of the people is dependent on them, they may be all right. If ex-

cess tariffs are laid on any article so that a monopoly may be made and the people taxed by an increased price, then such tariff ought to be totally abolished. These are not only wrong, but criminally wrong. The cotton goods trade has no objectionable features. It furnishes its part of the Government revenue, and no more than its fair part; it fosters no trust, and it increases no prices beyond the taxes necessary to raise revenue to run the Government.

FOREIGN COTTON GOODS TRADE.

By R. L. MCKELLER, Assistant Freight Traffic Manager, Southern Railway.

The production of the United States excels not only in quantity, but also in quality. If the world consumption of cotton goods is steadily increasing year by year, and we are producing 80 per cent. of the choicest raw material and manufacturing only one-third of what we are producing, what is the cause of this peculiar condition? According to my observation, the principal causes are three:

First—Our own country and its industries have been growing so rapidly that prior to recent years the energies of our cotton manufacturers have been absorbed in internal and home development, with little surplus left to devote to expansion in foreign trade.

Second—In the few years that our manufacturers have been seeking foreign trade they have not undertaken to acquire the intimate knowledge of the peculiarities and requirements of the trade itself, which is necessary to enable them to successfully compete with the manufacturers of other countries enjoying advantages either in proximity or long-established trade relations.

Third—Our Government has not adequately fostered and encouraged its foreign commerce, nor has it placed its merchant marine upon an equal footing with that of its competitors, Great Britain, Germany, France and Japan, and it is axiomatic that trade follows the flag.

In my opinion, the first condition has been passed; the second can be cured, but the third must be endured unless some of our statesmen can be made to see a light.

Our American mills, including the mills in Southern States, have made some substantial progress in the Orient during the last 10 years. As an illustration, the bookings of cotton goods in number of bales via Southern Railway through Pacific coast ports for the last eight years has been as follows: 1901, 114,192; 1902, 97,520; 1903, 87,334; 1904, 172,866; 1905, 375,723; 1906, 120,685; 1907, 7271; 1908, 51,730.

This does not by any means represent the entire movement from even Southern Railway mills, as it does not include the movement through New York, thence via Suez Canal, which movement has amounted to considerable. These sales have consisted largely of heavy coarse goods, and have been made mainly through New York selling agencies, and these agencies deserve great credit for the progress they have made in competition with the well-established trade of England and the nearby market of Japan. American mills, however, have little more than made a beginning.

It is my purpose, however, to point out as forcibly as possible the fact that our merchants and manufacturers are not only undertaking to compete with merchants and manufacturers of other countries, but they also have to meet the competition of our Government's competitors, and that the Oriental trade is now within easy access to us by means of our Transcontinental lines and their present steamship connections, and that with the opening of the Panama Canal the Orient, the East In-

dies and South America will be practically at the doors of our Southern ports; therefore, our Southern statesmen should lay aside all sectional differences and prejudices, if any exist, and earnestly go to work to place our merchant marine on an equal footing in way of subsidies and subsidies with that of Great Britain, Germany, France and Japan.

Apparently it has not yet fully dawned upon some of us that the Southern States, producing practically alone a commodity essential to all mankind, has in that commodity a mine of only partially developed wealth, but unlike most other mines, it can be made to increase its production each year without fear of depleting its basic source of supply.

Only within the last 10 years has the statement been made and oft repeated that the South was rich when it produced a cotton crop of 10,000,000 bales and received for it an average of 10 cents per pound.

This granted, then picture her financial condition in the next 10 years, with a production of 25,000,000 bales, of which 60 per cent. instead of 30 per cent., as now, is manufactured at home, and for which 10 cents per yard is averaged for the manufactured product, instead of 10 cents per pound for the raw cotton.

This is by no means an unreasonable expectation, when experience has already shown that the world's consumption of cotton goods is keeping steady pace with the increased production of cotton.

This country can easily double its present production of cotton without much more than extending itself, and should we manufacture 15,000,000 bales per annum, it would still leave 10,000,000 bales per year to export to foreign countries in exchange for ready cash.

During this time our already active and aggressive cottonseed-oil crushers may be relied upon to further extend their trade in the by-products of cottonseed oil, meal, cake and lard compound, thereby securing a corresponding increase in wealth from that source.

To bring about this much to be desired state of affairs we must capture the foreign market for our cotton goods, then will come the increased production and increased manufacture.

This subject is entirely too large to much more than point out its mere outline in an address of this kind, and as a brief summary of this inadequate review the following suggestions are submitted for your consideration:

First—Employ in the development of foreign trade the enterprise, energy and aggressiveness characteristic of Americans.

Second—Ascertain by means of resident agents what are the wants and needs of foreign countries, then manufacture and send them what they want, and pack it to suit them.

Third—Appoint these agents in all countries where a market for cotton goods exists, or can be made to exist.

Fourth—Send your ablest and most ex-

perienced manufacturers to these countries to make these appointments.

Fifth—Urge the Government to increase the number of its special agents assignable to cotton goods trade.

Sixth—Adjust your credit system to meet the requirements of the trade you are wanting and the competition to be met.

Seventh—Utilize to the fullest extent the experience and assistance of American banking institutions in foreign countries.

Eighth—Organize an exporters' associa-

tion for the special purpose of giving its members, by exchange or otherwise, the full benefit of any and all information obtainable respecting foreign trade and the most effective methods of developing it.

Ninth—Make the consuls of foreign countries honorary members of your organization, and in this way invite their support and co-operation.

Tenth—Urge our statesmen and lawmakers to rehabilitate our merchant marine by taking prompt steps to place it on an equal footing with that of competing nations.

FORESTS IN RELATION TO CONSERVATION.

By JOHN H. FINNEY, Secretary and Treasurer Appalachian National Forest Association.

I have accepted with much pleasure an invitation to talk to you today on what is certainly one of the largest, if not the largest, economic questions which the nation faces today, and one that is of vital concern not alone to the forest owner, but to every man, woman and child of the republic.

This economic question is involved in the proper solution of the forest question, and that it is a large question, requiring in its proper solution your help and active work, I shall try to show you in the brief time allotted to a discussion of it here.

The forest association which I have the honor to represent as secretary and treasurer is a small voluntary body working in the several Southern States, organized about 16 months ago in Atlanta to get out Southern influences for the proposed Appalachian-White Mountains forest, a project which has been actively proposed for some 20 years, and involving, as you doubtless know, the purchase and setting aside by the National Government for forest purposes of about 5,000,000 acres in the Southern Appalachians and 600,000 acres in the White Mountains, at the headwaters of important streams in both sections, this area to be managed under the identical lines as are in force in the national forests in the West.

This association, though small, is a real "live wire," for we have succeeded in changing the prevailing indifference of the South into active and aggressive work for this absolutely necessary forest area, and have succeeded, too, in making our influence felt in the nation at large, and while we have not yet won our fight, and the result of our work cannot be tangibly measured, it can be said with truth that the Appalachian forest is as good as won, for not even Congressional indifference and lack of foresight can finally prevent its establishment. I am an optimist, you see. I am one because optimism is required to see in the midst of forest destruction and prevailing waste of our natural resources any bright side, or to see that the leaven of civic righteousness and public duty, which the conservation movement involves, is taking any effective hold of our people as a whole, and yet I do believe that the inherent good sense of our people is at last making us realize the situation, and the stern realities that this situation means as applied to ourselves and our children and the nation.

I am going to assume that some idea of what the conservation movement means is pretty fairly fixed in your mind, so there need be no necessity for going into much detail, aptly described as "the application of common sense to common problems for the common good;" it can be further qualified by adding the words, "through the exercise of common honesty."

Common sense in dealing with the common problems of stopping the waste that surrounds our every use of our natural resources, whether they be mines or soils

or waters or forests, or human lives. If this assumption of knowledge of the general principles of conserving be correct, it can be safely assumed that men of intellect can see without great difficulty the fundamental importance of this work, and will gladly have pointed out some responsibilities that lie on the nation and on the State and on the individual—and will as willingly assume the individual duty—will seek to find it!

In passing to the forest question, which is, in the light of its rapid and systematic destruction, the foundation of the whole conservation movement, and is the one thing that must first be conserved, and conserved now, if done at all, there is no need of platitudes or glittering generalities. No one here can or will dispute the present critical condition of our once splendid and so-called inexhaustible forests—a condition which has brought the nation face to face with their complete destruction, carrying with it a sharp and serious menace to the very life of the nation.

The meat of the story is very briefly told. We are using timber at the rate of over three and one-half times its growth in all the forests; we have since 1870 destroyed by forest fires an average of 50 lives and \$50,000,000 worth of standing timber yearly. These forest fires have burned over 50,000,000 acres yearly, and have destroyed not only the above amount in merchantable timber, but have done infinitely more damage to young growth.

There can be but one result to such misuse, and this result is the complete exhaustion of the forests within your lifetime and mine—something short of 20 years.

Our study of the forest question shows that it can be solved properly, and that its solution involves, in equal measure and responsibility, the nation, the State and the individual in a clearly defined duty laid upon each simultaneously.

Upon the nation there must be laid, as a duty which it owes to itself, the establishment of forest areas wherever it may be "constitutionally" done. A part of this duty has been performed, however, unwillingly, by the the setting aside of the national forest area in the West, amounting to about 172,000,000 acres, and now in the safe hands of the Forest Service, for the use and benefit of the whole people perpetually.

The extension of this forest area through the setting aside of more of the public domain in the West, and through the purchase of forest areas in the East, where there remains no public domain, is imperatively demanded, and must be finally done by the nation, for upon these areas here in the South and in New England and elsewhere depend absolutely our water supply, water-power and navigation. When done, on the basis of buying not the least area possible to do with, but done on the basis of the largest area possible to acquire, we shall have not only the Appalachian and White Mountain forest re-

serve, but similar reserves on important watersheds all over the country.

This is the nation doing what the States cannot and should not be expected to do, and is just plain common sense; for every dollar so spent is not only profitably invested and earning a satisfactory rate of interest, but avoids the spending later of thousands of dollars in a costly reforestation plan, such as is now engaging France, to the extent of \$200,000, and proposed for England at an even greater cost, some £400,000,000, or \$2,000,000,000.

This national duty performed, would take care, say, of 25 per cent. of the nation's timber, and this, of course, is helpful, but what of the balance of 75 per cent. owned in the several States, and which, under no possible plan, could the nation save?

This brings up squarely the State duty—a duty which we are rather prone to forget, though most of us South can remember "States' Rights."

This duty consists of doing those things which neither the nation nor the individual can do, and there is involved in doing them the establishment of State forests under competent scientific foresters as demonstration tree-growing farms (demonstrating not only the practicability, but the profitability of a timber crop).

It involves a radical departure from current, though antiquated and wrong, methods of taxing forest lands.

It involves stringent fire laws, strictly enforced through State fire wardens, for fire prevention; fire-fighting and punishment of the man or men or corporation responsible for setting them.

When the State does this duty it can say to its citizenship—and not until it has done it can it say it—"we are making it easy for you to co-operate with us in forest conservation. Now do it. Voluntarily, if you will, but involuntarily, if needs be." It might finally involve restriction which might seem an abridgement of our boasted Anglo-Saxon liberties (that are in some respects unfortunately more license than liberty), but it requires no great stretch of imagination nor perversion of the actual facts to consider forest owners in the nature of public servants, and as such subject to wise regulation.

Our little association, realizing that this work in the States is even more important than the national work, is now trying to get this State work under way. This is our plan in brief:

A State forest in each State, purchased by the State, or given to the State by its citizens—a gift either in fee-simple or for a definite term of years—not necessarily a large area in one body, but preferably small areas of, say, 200 acres or thereabouts, scattered throughout the State, as demonstration farms.

It would surprise you to know how much area could be quickly brought into State forests were the States in position to assume their proper care and handling. I believe sufficient area could be had in all the States by gifts to make the State forests self-supporting; but to get the machinery started (and you understand that none of this machinery is in operation, even in part, in any of the Southern States) seems to require the definite offer of a forest area from a source sufficiently potent to compel the State to do its duty.

Trend of Immigration Toward Texas.

[Special Correspondence Manufacturers' Record.]

Rusk, Texas, May 19.

To one who has been watching the trend of the tide of immigration to the Southwest for the past few years there is much food for thought.

Going back several years ago, the tide flowed most freely into, first, Kansas, then Oklahoma, but now, and for perhaps two years, into Texas. Railroads running into this State have in all probability carried more homeseekers here during the last 12 or 18 months than have entered all other portions of the United States put together. So great has been this influx that many well-informed men believe the next census will show the population of Texas to exceed 5,000,000.

The question very naturally occurs to thoughtful people, What is the impelling cause of this change of course of the tide of immigration? In the answer to this question lies one of the most important problems of the industrial South. For generations other portions of the United States have been absorbing practically all the foreign immigration to this country. The result has been in many sections to create a dominating population of purely foreign people. In many instances those people have not yet even learned to speak our language, let alone to acquire American customs or associations. But during all these years there have been comparatively few of that foreign element sought homes in the South, but more especially is this true of the great Southwest. As far as the writer is informed, there is today only two or three colonies of exclusively foreign-born people within the borders of Texas. Now, if this means anything at all it means that English-speaking people, and particularly American-born people, are making up the bulk of those seeking homes in this section. This fact is not mentioned for the purpose of casting any reflection upon foreign-born

immigrants, but to emphasize the one truth that Texas is today filling up with a preponderance of Americans or English-speaking Europeans. Many Europeans make desirable citizens, yet it cannot be denied that many are the reverse. I believe that readers of the MANUFACTURERS' RECORD will agree with me that pure Anglo-Saxons are the people most desired in this country, and, further, that that section which can show the greatest preponderance of that class is the best place, other conditions being equal, for the home-seeker or the man seeking a location for business purposes.

Just what has caused the tide of foreign immigration to settle in the far Northern States and the Anglo-Saxon to seek the South or the Southwest is another matter and one which it is not the purpose of the writer to discuss at this time. But it may not be improper to say that, as a matter of fact, many of those coming to Texas are of the very best element of pure Anglo-Saxon blood from the States north or east of us and from those States having the largest foreign element of that class which does not assimilate readily with Americans.

It is not only proper but also strictly within the bounds of truth to say there are other potent causes drawing men of intelligence here. Just what these causes are is what men want to understand and what I shall endeavor to show.

Narrowing the view to limits of the Lone Star State, let me tell of some of the most important features which have a bearing upon the matter of immigration and the character of immigrants now and for many months past flocking into this State. Leaving the question of nationality out altogether, the next and most important feature is that of climate or climatic conditions. Taking the agricultural classes as the strongest numerically in

this country, and the extra care, cost of feed for long winters, of all stock, the heavy cost of fuel to carry a family through long winters of Northern States, to say nothing of the extra cost of wearing apparel required in all latitudes north of the 35th parallel, and we get some idea of the feeling of the man who has lived and toiled there for half a lifetime and then learns that in a nearby State he may escape much of the hardship he has undergone so long.

Next, perhaps, to climatic conditions may be placed the difference in soils, character of products of same, and while the agricultural class is the most numerous, it is also the source of the greatest production of wealth in this country, and therefore the class upon whom dependence for the wealth of this nation must depend should have every possible advantage in the battle for that wealth. Now, let us see what is the difference between production of soils in our more Northern States and in Texas. Take, for instance, the State of Iowa. What crops can be profitably grown there? Wheat, corn, oats, barley and other grains. Added to these may be some fruits, but of these little can be said. Of wheat, 40 bushels per acre is perhaps an average; of corn, say 60 bushels per acre. If we allow \$1 per bushel for each, that would be certainly the limit. Furthermore, no other crop can be grown for the same season on the same land. If we take \$50 as an average value per acre of products of Iowa lands, how does that compare with the average value per acre of products of Texas lands? Let us see. I will take my own section, East Texas, as a basis for this estimate. Here we can and do grow two crops per season. If we grow cotton exclusively, of course it is impracticable to grow other crops on the land the same season. But of that crop one-half to three-fourths bale of cotton per acre is a fair and reasonable yield. This in dollars and cents would average about \$30. Corn would be about the same value. But if we grow Irish potatoes, tomatoes or many other vegetable crops, then we may gather such crops and then plant and mature a crop of corn yielding almost or quite as much as if it had been planted in corn at first. This crop of vegetables yields upon an average \$75 to \$100 per acre and is an addition to the crop of corn which may always be depended upon. Thus our Iowa neighbors can grow on lands which they value at \$50 to \$100 per acre crops worth in the markets, say, \$50 per acre, while upon our Texas lands we grow crops valued at \$100 to \$150 per acre on land valued at \$15 to \$25 per acre. Is it any wonder that men seek homes in East Texas under such favored conditions?

It is not an uncommon thing for a farmer to raise enough in one season on 10 acres of East Texas land to pay for 100 acres of the same land. Some readers of the MANUFACTURERS' RECORD may wonder that this subject should be discussed in these columns, but I beg to remind them that agriculture forms the basis of all wealth in this country and without its presence all other industries would soon fail.

But reverting to the question of the desirability of Texas as a suitable place for the homeseker, whatever his vocation may be, no man need depend wholly upon agricultural pursuits for a living here. On the contrary, the diversity of pursuits and industries which may be profitably followed here is greater, perhaps, than can be found in any other State of this Union. Take, for instance, as has repeatedly been shown in these columns, the one item of oil, and Texas is today in all probability producing more oil than any State in the Union. The same can doubtless be

said of lumber. Thus we have of two principal commodities here the foundation for great wealth. But these are not the only resources which may be relied upon.

In all probability the mineral resources of Texas are more varied than in any other State. Of these, it would be most difficult to say which is the most extensive or valuable. Oil would perhaps take first place; next would be iron ore and coal. The latter doubtless covers a wider range of territory, but the former is the most valuable of the two. Both have been discussed in these columns in former issues, but it may not be out of place now to say that indications point to a speedy revival of the iron industry of East Texas on a more extensive basis than ever before. The State furnace here, which is without doubt the finest west of the Mississippi River, will soon be put in blast, with ample capital to carry on the business of making pig-iron and cast water pipe on an extensive scale. Two additional railroads have recently been completed to this point, thus giving facilities for reaching every point of the compass by rail. In connection with the smelter mentioned above, negotiations are now under way for the erection of an 80 or 100-ton steel mill, which will take its iron from this smelter in the molten state and convert it into rolled iron and steel. These two industries mean much for this section, and will doubtless prove the beginning of a new era for Texas. The ore which will be worked at this smelter is brown hematite, which assays 50 to 56 per cent. metallic iron. Siderite ore, assaying 60 to 62 per cent. iron, and also goethite ore, assaying 68 to 70 per cent. metallic iron, have recently been discovered in this field. Just how extensive these last-named ores may be is not known at present. One point which I wish to make plain here is the fact that in what is already known to be enormous deposits of the brown hematite ore no effort has yet been made to ascertain whether or not a lower strata of ore exists. Experienced iron men say that in most ore fields there are always two, if not three, stratas of ore, and further, the lower stratas are invariably the best.

Another valuable mineral here is steatite, a silicate of magnesia, which is found to underlie the iron ore, and which iron men will understand is of great value in every branch of iron molding.

Another valuable mineral of recent discovery is beauxite, which assays 55 per cent. pure aluminum.

From the foregoing it can be seen at a glance that Texas doesn't need rely upon agriculture wholly for an income, or for attractions for the homeseker. But taking her vast and varied resources, no other State can offer equal inducements for all manner of industries as can Texas. All East Texas is awake to the needs of more intelligent, enterprising people, and especially this particular locality is not only willing, but anxious, to do anything in its power to encourage the investment of capital in the development of these valuable resources.

Having already referred to our coal deposits, it may be permissible to say here that the United States Geological Department is now carrying on experiments for the purpose of ascertaining if the Texas soft coal can be put into any form which will make it available for smelting iron ore. Much depends upon the outcome of this test. As there are millions of this coal all over the State, but especially in this immediate vicinity, if this test proves successful it will open up another source of vast wealth.

W.M. C. CLOYD.

The Southern Steamship Co. has begun operations of its new line between Philadelphia and New Orleans, starting the service with the steamship Evelyn.

BALTIMORE'S MUNICIPAL DOCK IMPROVEMENTS.

By WILLIAM H. STONE.

[Written for the Manufacturers' Record.]

One of the most important questions facing Southern seaport cities is that of providing adequate and modern facilities for foreign and coastwise shipping. As the South continues to grow and expand in all lines of endeavor its business intercourse with other parts of this country and foreign countries is bound to grow at a rapid rate. It is of the greatest importance, therefore, that these cities should

that they should prove of great interest and assistance to many other Southern cities in planning for the improvement of their own port facilities. When it was determined to undertake this work a bill was prepared and passed by the State Legislature authorizing the city to submit to the votes of the people a \$6,000,000 bond issue known as the "dock loan." This was favorably acted upon by the peo-



VIEW OF CAISONS AND LATTICE GIRDERS IN PLACE.

look ahead and outline certain well-defined plans looking to equipping their harbors with the most approved facilities to meet the demands that the future is bound to bring forth. A number of the older cities in both this and foreign countries have found from past experience that the best results have come from the municipality itself owning its own water front and building its own dock and pier system. In this way the improvements are carried out

ple. The money from this loan not only provided for the purchase of all necessary land and rights along the water-front section to be improved and the construction of the docks and piers as planned, but a part of it was also used for widening several streets and making several other municipal improvements.

Six modern piers and docks were planned in the upper part of the harbor, but later on two others were also added, making a



INTERESTING DETAILS OF CONSTRUCTION.

on a broad and comprehensive scale and are enlarged from time to time in accordance with a definite plan to meet the demands of the port as they come up.

The methods employed by the city of Baltimore looking to the acquirement from private interests of certain of its waterfront properties immediately after the great fire of 1904 and the construction of modern docks and piers to meet modern requirements have worked out so well

total of eight. The area of these piers was figured out and prices per square foot were determined upon by the municipal Board of Estimates at which space on the piers would be rented. The price averages about 36 cents per square foot, and is sufficient to take care of the \$6,000,000 dock loan, paying all charges connected with it and providing a sinking fund to meet it at its maturity in 1954. Consequently, it will be seen that this plan was so worked

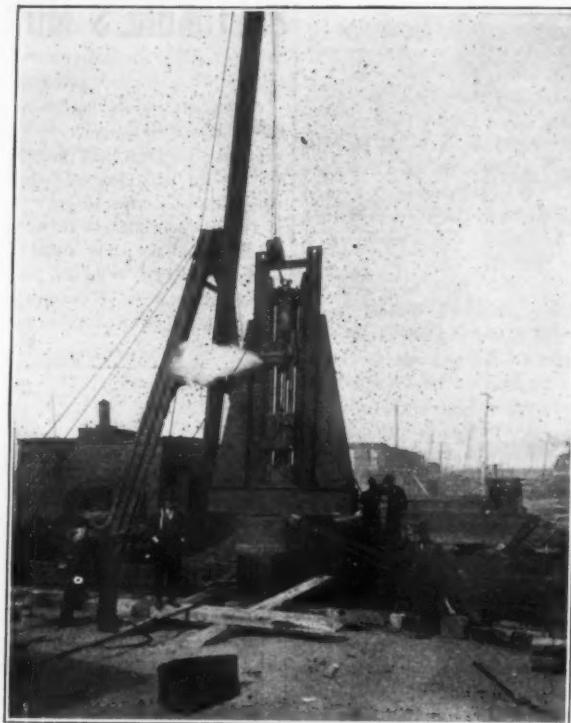
out that for this improvement work the taxpayers are not called upon to pay any additional taxes, as the improvement will pay for itself.

The sizes of the six piers are approximately as follows:

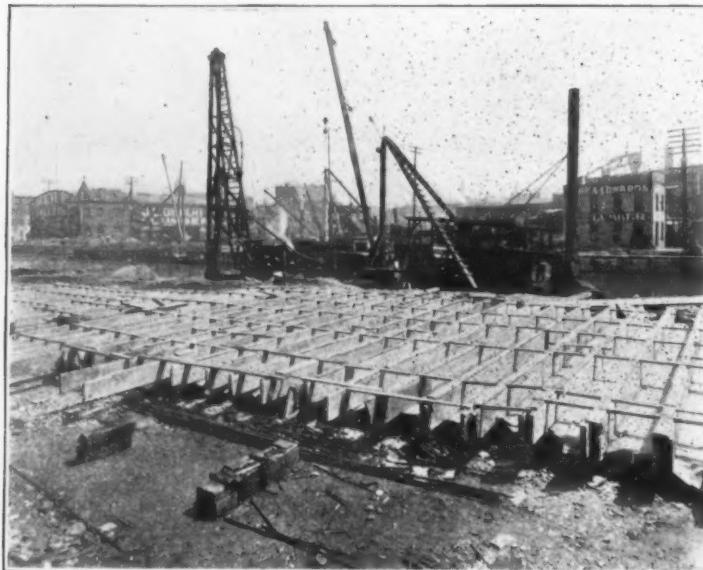
Pier No. 1, 150x550 feet.
Pier No. 2, 200x635 feet.
Pier No. 3, 200x770 feet.
Pier No. 4, 210x925 feet.
Pier No. 5, 200x1150 feet.
Pier No. 6, 150x1400 feet.

All docks which average about 150 feet in width between the piers are dredged to a depth of 24 feet mean low water. As the plans provided for an entire realignment of piers, a large amount of excavation was necessary, involving in all about 2,500,000 cubic yards. Pratt street, which faces the new piers, was also widened from 60 to 120 feet, this necessitating the construction of a new bulkhead, having an approximate total length of 1300 feet. This bulkhead was of timber and masonry construction.

Piers 1, 2 and 3, which are of timber and masonry construction, were completed in April, 1908, at a cost of \$550,000, exclusive of property purchases. All space on these piers has been leased with the exception of a portion of Pier 2. The leases and rates paid per square foot are as follows:



METHOD OF DRIVING STEEL CAISSON.



FORMS FOR REINFORCED CONCRETE SHEET PILING.



COMPLETED REINFORCED CONCRETE SHEET PILING.

Pratt-street Bulkhead.

Baltimore & Philadelphia Steamship Co. \$10,000 00

Pier No. 1.

Baltimore, Chesapeake & Atlantic Railway Co., 40,244 square feet at 40 cents. 16,097 60

United Fruit Co., 41,860 square feet at 36 cents. 15,071 04

Pier No. 2.

Atlantic Fruit Co., 26,848.65 square feet at 36 cents. 9,665.51

Lanahan & Goffe Company, 25,934 square feet at 36 cents. 9,336.24

Standard Oil Co., 10,016 square feet at 36 cents. 3,605.80

Martin Wagner Company, 3083.84 square feet at 36 cents. 2,910.18

Unleased portion, 55,991 square feet at 36 cents. 20,156.76

Pier No. 3.

Merchants & Miners' Transportation Co., entire pier. 40,000 00

These spaces on the piers were delivered to the lessees without superstructures, these being provided by the lessees, who also had to bear their portion of cost of paving the street in the center of the pier. The superstructures, all of which are substantially built, become the property of the city upon the expiration of the 50-year lease, and upon renewal the lessee will have to pay an additional amount for the rent of the building.

The upper part of Pier 4 is occupied by the power-house of the United Railways & Electric Co., and the lower end has been provided with a slip in the center 70 feet wide and 350 feet long, thus giving addi-



CONCRETE SHEET PILING DRIVEN IN PLACE.

tional docking space. This pier will not be leased, but will be devoted to the bay craft which bring oysters, fish and produce

service, because it is at the end of Market place, on which is situated the municipal wholesale produce and fish markets.

Pier 5 will be leased for general shipping purposes, while Piers 6, 7 and 8 will be leased to the lumber trade.

In designing Piers 4, 5 and 6 a marked departure was made, in that they are to be entirely of reinforced concrete, no timber being used at all except for fender purposes. This method of construction was determined upon only after a most careful consideration as to its adaptability and stability, and also as to its cost in comparison with that of timber and masonry construction. In cost, concrete was not only found to be cheaper, but that it also could be constructed much more quickly, thereby enabling the piers to produce revenue in a shorter time. Moreover, it was felt that as Teredo, which is so destructive to wooden piles, would soon make its appearance, when the sewage was removed from the harbor by the completion of the new sanitary sewerage system, it was advisable to adopt reinforced concrete sheet piling in place of timber, and so be guarded against the ravages of this destructive worm.

Bids were taken on these three reinforced concrete piers, and contract was awarded to Sanford & Brooks Company of

Baltimore, the lowest bidder, on March 25, 1908, at its bid of \$976,637.85 for construction of Piers 4, 5 and 6 and bulkhead on East Falls avenue, and \$242,880 for necessary dredging work, making a total of \$1,219,517.85. The contract for wrecking the old material on the piers was awarded to James Farley of Baltimore, who agreed to pay the city \$7300 for the old material. After careful investigation the system of the Raymond Concrete Pile Co., New York city, was adopted for the concrete work, and that company was awarded subcontracts by the Sanford & Brooks Company for all of the concrete work connected with the piers, amounting in all to about \$525,000.

Briefly explained, these piers are being constructed as follows:

Steel caissons 3x10 feet and 27 feet long will be driven at intervals of 25 feet on centers on the outer edge of all the piers. These caissons weigh 14,000 pounds each, and act as forms for concrete, there being 27 cubic yards of concrete placed in each one. There are altogether 440 of these caissons, and the contract for fabricating and delivering them, driven in place ready for concrete filling, was awarded to the Maryland Steel Co., Sparrows Point, Md.

This company, in turn, awarded separate subcontracts, one to Snare & Triest, New York, and the other to Bernard Roiphe of New York, for driving the caissons in position. The method of driving the caissons consisted of first sinking them as far as they would go, then pumping the mud and water out of the interior. A heavy steel cap was then placed on top of the caissons and they were driven down by a steel hammer. A jetting pump delivering water at a pressure of 200 pounds was used to

eighth-inch bars on the inner edge, with five-sixteenth-inch ties 18 inches apart. These piles are tapered on one end, in order to cause them when driven to set closely together. Altogether there was used approximately 180,000 linear feet of sheet piling. They were built on the site and allowed to set 28 days before using. Accompanying illustrations show the forms for making the sheet piling and the sheet piling after forms were removed. As

not only holding back the concrete sheet piling, but would also bear the weight of the masonry work above. This masonry work was four feet wide and four and one-half feet high. The concrete girders were reinforced with one-inch and seven-eighths-inch rods. The outer ends of the caissons extend upward two feet eight inches, and on these extensions from caisson to caisson are placed two 15-inch steel channels, bolted together and covered with American Steel & Wire Co.'s triangular mesh and encased in concrete. These channels support the concrete curbing, and one end of a floor slab six inches thick and four feet wide, the other end of which is carried by a short section of concrete wall resting on and tied to the top of the sheet piling.

The curbing is constructed according to the system of the Wainwright steel-bound concrete curb, controlled by the Steel Protected Concrete Co., Philadelphia, Pa., this system being used for all curb work by the city of Baltimore.

Wooden fender piles are driven eight inches from the faces of the pier wall and eight feet four inches on centers, and they are firmly held by U-shaped straps, which are bolted to lugs on the side of the caissons. The piles are capped by 12-inch square timbers, which are securely held in place by steel bands. Altogether there were about 6120 tons of steel used, including caissons, girders and channels, these being all furnished by the Maryland Steel Co. Approximately 35,000 cubic yards of concrete was required, the cement for this being supplied by the Atlas Portland Cement Co., New York, and the Maryland Portland Cement Co., Baltimore. The Maxwell deformed bar, made by the Q. & C. Co., Old Colony Building, Chicago, was used for reinforcing all concrete work.

In addition to placing all of the concrete work and constructing the concrete sheet piling, the Raymond Concrete Pile Co. used about 600 of its own patented concrete piles on the work. These were used for tying back the caissons on Pier 4 and on the bulkhead of East Falls avenue. This company's method of driving its piles differs from others, in that a collapsible steel core is placed inside of a shell composed of 16 to 18 gauge sheet steel and driven to desired depth by piledriver. After this depth is reached the core is withdrawn and the shell filled with concrete. Prior to filling, the shell is always carefully inspected. This method not only prevents the admixture of any foreign material with the concrete, but also protects the setting concrete against distortion through earth pressure.

Two of the eight illustrations of this work are of more than passing interest, because they show various interesting details of construction. In an illustration entitled "View of Caissons and Lattice Girders in Place" can be seen the tops of the caissons at regular intervals, the concrete beam tying them back and extending from caisson to caisson, the steel lattice girders which hold the concrete sheet piling in place. The steel channels are also shown, these being ready to be placed on the outer edge of the caissons. Both the steel channels and lattice girders were later covered with triangular wire mesh and encased in concrete.

In the other illustration, entitled "Interesting Details of Construction," a completed portion of the pier is shown in the right-hand corner, including the concrete curb and timber fender, while just below it can be seen the steel channels covered with triangular wire mesh, and next to this the concrete-covered steel lattice girder, bearing against the upper ends of the sheet-steel piling.

The piers were constructed according to special designs prepared by Harbor Engi-

neer Oscar F. Lackey, who also exercised direct supervision of the work. Construction details were in charge of Assistant Harbor Engineer E. C. Lawrence. Mr. Seymour was in charge of the Raymond Concrete Pile Co.'s part of the work, which included all of the concrete construction.

The work on Piers 4, 5 and 6 is now about 50 per cent. completed, and is in splendid shape to be inspected by those interested in such work.

Realizing the splendid benefits that will accrue to the city from these municipally-owned piers and docks, Harbor Engineer Lackey has recommended that more of them be constructed. He pointed out that there is now lying idle thousands of feet of unimproved water-front property which could be purchased at small cost at this time, compared with what it will demand in the future. This property could be improved by modern piers and docks from time to time as the demand for them arose. Their construction would not entail any additional expense on the taxpayers, because, as in the case of those already completed, they would be self-supporting. In this way not only would the city be improving the many natural advantages which it possesses as a shipping point, but it would also cause many important shipping interests to establish terminals here.

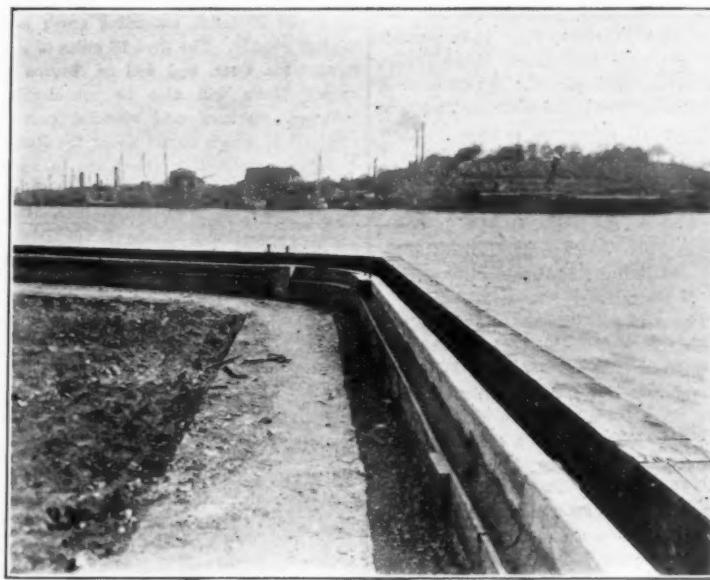
Baltimore already enjoys a large export and import trade, amounting in 1908 to over \$105,000,000. Baltimore is also the foremost corn exporting port in the country, sending out an average of 40,000,000 bushels annually. It also exports an average of 20,000,000 bushels of other grain and from 3,000,000 to 4,000,000 barrels of flour, besides large quantities of other products of all kinds.

The United States Government is now constructing, at an estimated cost of \$3,465,000, a 35-foot channel, 600 feet wide at the bottom, leading up to Baltimore, and as this will allow much larger ships to reach the city, the construction of some large modern piers in the lower part of the harbor would undoubtedly tend to attract some important steamship lines to the city. Other cities along the coast are by liberal expenditures providing themselves with harbor facilities for getting their full share of the always increasing interchange of commodities among nations. In some of these cities this is only done by expenditure of large sums of money, as they are without the splendid natural advantages enjoyed by others. In the South, from Baltimore to the Gulf of Mexico, there are many ports that could be improved at a comparatively small expense, and if they would undertake broad, liberal policies for such work they would undoubtedly be able to get a large amount of business that is now going to other ports owing to their lack of facilities.

As has been pointed out, most of the foreign cities and an increasing number of American cities are undertaking this work themselves, having realized that the broadest development and fullest benefits can only come from well-defined plans carried out under municipal ownership.

Big Plant Resuming.

It is understood that the National Tube Co. will resume operations next week at its Riverside plant, Benwood, W. Va. This plant has been idle since October, 1907, and about \$100,000 has been invested in improvements. The improvements have been made not only to facilitate and economize manufacturing, but also to provide the mechanical equipment with devices preventing accidents to employees. Probably over 4000 men will be on the payroll of \$45,000 per week when the full capacity has been reached again.



CONCRETE CURB AND GUTTER ON END OF PIER 4.

loosen the material, which was pumped out by a centrifugal pump. The caissons were driven at an average of five a week. An illustration herewith shows a steam hammer driving one of the caissons.

On Piers 2 and 6, and on the two slips on lower end of Pier 4, the caissons on one side are connected to those on the opposite side by eight one-and-one-eighth-inch steel bars, encased in concrete, while in remaining places the caissons are tied

placed on top of them and another layer cast, and at times there were as many as six layers of sheet piling. The sheet piling was driven in place by a piledriver, with the assistance of a water jet of 200 pounds pressure. Extending from caisson to caisson are steel lattice girders, which are surrounded by triangular wire mesh made by the American Steel & Wire Co. of Chicago and New York, and encased in concrete. These lattice girders hold the upper



PAVING COMPLETED PORTION OF PIER 4.

back by steel bars connected to two Raymond concrete piles, anchored by reinforced concrete "dead men" nine feet long, three feet high and two feet thick, imbedded in the ground and on a level with the top of the caissons. Between the caissons are driven the reinforced concrete sheet piling. These piles were constructed by the Raymond company according to its own design. They are 12x18 inches, and are reinforced by four three-quarter-inch bars on the outer edge and four three-

end of the sheet piling securely in place, bearing directly against them. Steel lattice girders were used for holding back the sheet piling on all piers, but in the construction of the bulkhead on East Falls avenue reinforced concrete girders were substituted for the steel lattice girders, the reason for this being that the old bulkhead was composed of masonry on wooden piles, and as it was more economical to use this masonry again, it was necessary to provide a girder that would serve the purpose of

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

BIG RAILROAD SHOPS.

Springfield Plant of the St. Louis & San Francisco System.

[Special Cor. Manufacturers' Record.]

Springfield, Mo., May 15.

By the last of next month the St. Louis & San Francisco Railroad will have completed one of the most modern locomotive-repair plants to be found in this country just outside the city limits of this city. This plant covers an area of 310 acres, and when all the buildings are completed will cost \$2,000,000. The first foundation began May, 1907. On the payroll have been employed from time to time 1100 men, drawing wages of from \$19,000 to \$19,500 per week, footing up an outlay of \$988,000 a year. A large part of these wages have been spent in Springfield and vicinity for homes, clothing, food and the necessities of life. The company has shown great foresight in locating its locomotive-repair plant here. The primary object of this modern plant is repair work for the whole entire system, besides building cars, trucks, engines, boilers and all equipment pertaining to a railroad. There will be 10 miles of trackage on these grounds embraced in the 310 acres.

The buildings common to all departments are located in the main center, and comprise storehouse, 90x162 feet; powerhouse, 118x160 feet; forge shop, 103x245 feet; boiler and tank shop, 345x118 feet; couch shop, 304x208 feet; paint shop, 183x183 feet; storehouse, 90x162 feet, and the material shed, 280x80 feet. All of these buildings are of structural steel and brick, with the exception of the storehouse, which is reinforced concrete. Over 3000 tons of steel and 3,160,000 brick were used in the construction of these buildings, now nearing completion. The power-house is in the center of gravity of the power requirements, being close to the machine and erecting shop and boiler and tank shop, and adjacent to the planing mill, from which waste material can be delivered directly to the boiler.

This power-house is one of the largest in the country. The forge shop is close to the machine and erecting shop, scrap bins and roundhouses, and by means of the yard crane and transfer table, or by tracks, it is accessible to the coach department, where the least output is required. The locomotive department is conveniently grouped for economical operation, and provision is made for future extension of 100 per cent. without marked increase in the distance over which material must be moved. The machine and erecting shop and boiler and tank shop are served by the transfer table, which is common to the locomotive and coach departments. The steel-car shop is adjacent to the new freight-car shop, making it convenient for composite cars, and it is also close to the boiler and tank shop, thus bringing all the work of this class together. The steel cars pass directly through the new freight-car paint shop on the way out. The car-wheel shop is as nearly central as possible to the freight-car and coach shops.

By means of transfer table, industrial tracks and the through tracks provided, the handling of the wheels to and from this shop can be easily accomplished. The transfer table, which will receive material from the yard crane, is 1338 feet long, and will carry material or anything needed throughout this immense plant. Each one of the several buildings in the plant is equipped with electrical cranes with a capacity ranging from 5 to 110 tons.

Water is supplied to this plant from five

wells 900 feet deep. The water pressure is secured from a 100,000-gallon steel water tank, which is 178 feet high above the level of the floors of the various buildings. The grading of the grounds is being done by a 75-ton steam shovel with a capacity of a three-and-one-half-yard dipper, which is about equal to three wagon-loads of dirt.

In this immense railway plant, which will soon be completed, is given some idea of what one railway system is doing for a community and for labor conditions.

ALEXANDER HELPER.

New Equipment, Etc.

The St. Louis Southwestern Railway, according to a press report, will build 500 stock cars at its shops in Pine Bluff, Ark.

The Pennsylvania Railroad is reported to have ordered 2300 tons of bridge steel from the Pennsylvania Steel Co. and 1150 tons from the McClinton-Marshall Construction Co.

The Southern Railway, the Seaboard Air Line and the Pennsylvania Railroad, according to current market reports, are contemplating placing orders for several bridges each.

A press report from New York says that the Gould lines have ordered 100 locomotives from the American Locomotive Co.

The Georgia & Florida Railway, says a dispatch, has ordered 65,000 crossties from J. B. Lewis of Waycross, Ga.

The Missouri, Kansas & Texas Railway, recently reported in the market for more than 800 cars, has, according to a press report, distributed its order between the American Car & Foundry Co., the Mt. Vernon Car & Manufacturing Co. and the Ralston Steel Car Co. This order included 450 box cars, 111 steel underframe gondolas, 78 steel underframe flat cars, 50 stock cars and 40 furniture cars, besides other equipment.

The Kansas City Belt Line has ordered from the Baldwin Works two switching locomotives.

The Pennsylvania lines west of Pittsburgh are reported in the market for 121 steel passenger cars.

The Queen & Crescent Route (Cincinnati, New Orleans & Texas Pacific and the Alabama Great Southern) has ordered from the Mt. Vernon Car Co. 226 car bodies.

The Baltimore & Ohio Railroad, it is reported, will have the Ryan Car Co. rebuild 500 box cars. The company is also reported in the market for passenger and freight cars.

The Western Maryland Railroad has ordered a parlor car from the Barney & Smith Car Co.

A dispatch from Beaumont, Texas, says that the Rock Island-Frisco lines are in the market for 7,500,000 feet of lumber and 40,000 crossties.

The Florida & East Coast Railway is reported in the market for a steel bascule bridge of 500 tons.

Contract for the Winner bridge at Kansas City, Mo., which will demand 12,000 tons of steel, is reported pending. This bridge has been in contemplation for several years.

The Beaumont Traction Co. of Beaumont, Texas, has received five new double-truck vestibuled street cars from the St. Louis Car Co.

The Altus, Roswell & El Paso Railroad Co. of Altus, Okla., has bought rails for 33 miles of track from the Block-Pollok Company of Chicago.

Fitzgerald & Northwestern.

An official letter to the MANUFACTURERS' RECORD says that the Fitzgerald & Northwestern Railroad Co. has elected W. R. Bowen as temporary president and J. G. Knapp as temporary secretary. The

other promoters of the line are M. W. Garbutt and D. B. Jay of Fitzgerald, Ga.; J. J. Dorminey of Broxton, Ga., and T. S. Price of Douglas, Ga. It is expected to make application for a charter early in June.

Continuing, the letter says: "We have two proposed routes in view, and it is the intention of the promoters to go over these lines the latter part of this month or the early part of June. The length of line will be approximately 80 miles. It will cross the Seaboard Air Line Railroad at or near Rochelle, Ga., and the Gulf line at or near Pineview, Ga. It is possible that the road will touch Hawkinsville, connecting there with the Wrightsville & Tennille Railroad and with the Southern Railway. If this route is used, the new road will cross the Georgia Southern & Florida Railway at or near Grovania and run from there to Perry, making connection with the Central of Georgia Railway, and at Fort Valley connecting with the Southern Railway and again with the Central of Georgia.

"The road will traverse one of the best farming sections of this State, settled with prosperous farmers. It will also pass through two fine bodies of timber which have never been cut upon. There is no doubt but that the road will soon be built. Flattering propositions have already been made to the promoters regarding it. Construction from Fitzgerald southward to St. Marys has not as yet been considered, but this matter will come up in the near future."

Mr. Knapp, who is temporary secretary for the company, is Mayor of Fitzgerald, Ga.

New Board for the "Orient."

The Kansas City, Mexico & Orient Railway, according to a report from Kansas City, reorganized its board of directors at the recent annual meeting as a result of the wider distribution of its securities, and the board is now composed as follows: A. N. Belding, president Belding Bros. Silk Co., New York; A. Monroe, banker, Lawrence, Kans.; P. W. Goebel, banker, Kansas City, Kans.; D. W. Mulvane, banker, Topeka, Kans.; H. A. Stilwell, Butler Bros., Chicago; J. T. Odell, president Marquette & Bessemer Dock & Navigation Co., New York; John F. Allen, banker, Rochester, N. Y.; C. R. Huntley, president Buffalo General Electric Co., Buffalo, N. Y.; H. S. Manning, banker, New York; W. D. Baldwin, president Otis Elevator Co., New York; Thomas Evans, banker, Pittsburgh, Pa.; Frederick Roebling, president J. A. Roebling, Sons & Co., Trenton, N. J.; H. D. Estabrook, general attorney Western Union Telegraph Co., New York; William H. McCord, Post & McCord, contractors, New York; Charles F. Ayer, capitalist, Boston; H. A. Bishop, capitalist, Bridgeport; E. D. Stair, president Detroit Free Press, Detroit, Mich. In addition to the foregoing, Arthur E. Stilwell, president; W. W. Sylvester, vice-president, and E. Dickinson, vice-president and general manager of the Kansas City, Mexico & Orient Railway, are members of the board. The board of directors for the company's line in Mexico also includes Ing. Isodoro Diaz Lombardo, Sr. Lic. Manuel Calero and Col. S. Garcia Cuellar.

There are three members of the executive committee who are not directors. They are R. A. Long, head of the Long-Bell Lumber Co. of Kansas City; W. A. Rule, also of Kansas City, and Rolla Wells, former Mayor of St. Louis. The other members are Directors Estabrook, Odell, A. E. Stilwell and Dickinson.

The St. Louis Southwestern Railway, according to a dispatch quoting an official, is preparing plans for the expenditure of

\$150,000 to enlarge and improve the machine shops at Tyler, Texas.

Rome & Northern Plans.

The MANUFACTURERS' RECORD is informed that Burke & Joseph of Cape Girardeau, Mo., have been awarded a contract by the Rome & Northern Railroad Co. for the construction of a line from Rome, Ga., in Floyd county northward to Gore, in Chattooga county, 18 miles, and thence southeast and northwest from Gore, paralleling the Taylor Ridge Mountains for about 50 miles, extending north into Walker county. The first 18 miles of line is all team work, and will be covered at once. There will also be considerable bridging, masonry and vitrified culvert pipe, all of which comes under the Burke & Joseph contract, as they are to build the line complete, excepting the tracklaying and the erection of iron bridges. This road is being built by the R. G. Peters Salt & Lumber Co., and passes through a rich agricultural district. It gives an outlet for a vast area of timber and what is said to be the largest quantity of iron ore now undeveloped in Georgia. The work will be under the charge of J. B. Ricards, general superintendent for the contractors.

A press dispatch from Rome announces the preliminary organization of the railroad company with \$1,000,000 capital, and that the line will be 80 miles long from Rome through Floyd, Chattooga, Whitfield, Walker and Catoosa counties to a point on the Tennessee boundary. It is said to be the ultimate intention of the promoters to extend to either Chattanooga or Nashville. The incorporators are R. G. Peters, James R. Peters, Roy A. Nickerson and Richard H. Hoffman of Manistee, Mich., besides several capitalists of Rome, Ga.

The company is reported to have already purchased two trains of flat cars, besides several box cars. Orders were also placed for steel rails and a large number of crossties.

Houston Passenger Terminal.

The passenger terminal station to be erected by the Houston Belt & Terminal Co. of Houston, Texas, will, according to a report from that city, be started within 60 days, and is expected to be finished sufficiently to be used by January next. The building will first be erected three stories high, but the walls are to be of sufficient strength to permit its being finally built 10 or 12 stories high if desired. The amount to be spent now is between \$450,000 and \$500,000. The first two stories will be constructed of stone, and the others of brick. The entire first floor will be used for the passenger station, with a general waiting-room 100 feet square. Between the waiting-room and the car shed will be a concourse 75 feet wide. The structure will occupy the entire width of the block, and will have a 25-foot sidewalk. The car sheds will cover a block, and will be occupied by 11 tracks. The upper stories of the station building will be used as railroad offices, and it will be constructed under the supervision of J. J. Flynn, general manager of the Belt & Terminal Co.

Georgia & Florida Construction.

J. M. Turner, general manager of the Georgia & Florida Railway, which is being built from Augusta, Ga., to Madison, Fla., is reported as saying that the headquarters of the company will be moved back from Douglas to Augusta, Ga., next fall. It is said that construction on the line is being pushed, and that trains may be running from Augusta to Madison by late in the fall, if not sooner. The bridge across the Altamaha River is an important

structure, and when it is completed, which may be in two or three months, the work of construction will be facilitated.

Trains are now being operated on the northern end of the line between Keysville and Swainsboro, Ga.; also between Millen and Vidalia, Ga., and again between Hazlehurst, Ga., and Madison, Fla., via Douglas, Valdosta and other points. The link from Keysville to Augusta may not be taken up for construction until the other part of the main line is connected up, as Augusta is now reached by connection with the Augusta Southern Railroad. Some time ago property was purchased for the Augusta terminals.

A West Virginia Development.

The Hampshire Southern Railroad Co. has completed plans to build its proposed line connecting Romney, Moorfield and Petersburg, W. Va., about 40 miles, and contract has been let to the Frank H. Blodgett Construction Co. of Wheeling to build the road, which, it is expected, will be ready for operation in about a year. The Baltimore & Ohio Railroad is said to be indirectly interested, and the promoters of the line include John J. Cornwell of Romney and William B. Cornwell of Fairmont, W. Va.; M. E. Ailes and J. H. Small of Washington, D. C., and others. A. Spates Brady of Fairmont is engineer. The Baltimore & Ohio will, it is stated, furnish rails for the line, taking bonds in payment, and William Trapnell will supervise construction. The United States Leather Co. is said to be concerned.

Coal and iron lands will be developed by the new line, as well as an agricultural region. Construction is expected to be under way by June 1.

Contemplates Many Betterments.

The New Orleans Railway & Light Co. is to be refinanced, and, according to a report from that city, provision will be made to spend \$1,000,000 a year for betterments and extensions, this to continue for several years. The refinancing plan contemplates a bond issue for \$50,000,000 at 5 per cent., \$30,000,000 of this issue to be held for the redemption of \$30,000,000 of 4½ per cent. bonds now outstanding. The other \$20,000,000 are to be used for betterments, but not more than \$1,000,000 in any year. This plan, it is stated, has been proposed by Bertram, Griscom & Jenks of New York, and has been referred to a committee of stockholders for consideration. It appears that a decision on the matter will not be finally reached until June 28, when all the stockholders, it is expected, will have been heard from. Hugh McCloskey is president.

Virginia Passenger & Power Co.

The Virginia Passenger & Power Co., whose property was recently sold at a receiver's sale and bought in by the Gould interests, has been reorganized by the election of officers and directors as follows: President, William Northrop; first vice-president, Fritz Sitterding; second vice-president, Henry W. Anderson, all of Richmond; directors, Frank Jay Gould of New York, chairman; R. Lancaster Williams of Richmond and Baltimore, Howard Gould, George J. Gould, Douglass Robinson, Percy M. Chandler of New York, and C. S. Whelan of Philadelphia.

According to a press report from Richmond, it is understood that several extensions are projected for the street railways there, but no action will be taken toward construction until certain arrangements have been completed.

Chattanooga Street Railway Deal.

The Chattanooga Railways Co., according to a dispatch from that city, will be

absorbed by the Chattanooga Electric Co., a new corporation, as the result of a deal closed in Louisville on behalf of the General Electric Co. of New York, which, it is said, now holds control, although Graham & Co. of Philadelphia continue interested in the property. It is stated that E. W. Clark & Co. of Philadelphia and Hodenpyl, Walbridge & Co. of New York conducted the negotiations. The new company has a Maine charter, and steps have been taken in the Chattanooga City Council to accomplish the merger. The officers of the company at present are John Graham, president; Clarence P. King, vice-president; W. H. Lawton, secretary and treasurer, all at Philadelphia.

Harriman Extensions in View.

E. B. Cushing, engineer of the Southern Pacific lines in Texas, has, according to a press report, been making an inspection of routes for contemplated extensions to improve the Harriman system. His trip was through Live Oak, Duval, Atascosa, McMullen and Hidalgo counties. It is said that the construction of a line southward would ultimately develop lands in which Mr. Harriman is interested around Tampico, Mexico. This includes a great oil field, besides other rich natural advantages. It is further stated that experts on geology and agriculture have also inspected the country through which lines may be built, and reports of these investigations will be submitted to the heads of the system. Mr. Cushing's headquarters are at Houston, Texas.

Three Large Trestles.

The Atlantic Coast Line is pushing construction on three important trestle bridges in South Carolina, crossing the Pee Dee River, the Santee River and the Savannah River. The piers are of steel and concrete, and the entire structures are designed to be of great strength to withstand any floods. The bridge over the Pee Dee River, which is above Florence, S. C., will be a little more than a mile long; that over the Santee River, between Gourdin and St. Stephens, will be about three miles long, and that over the Savannah, near Hardeeville, will be between two and three miles in length. It may be more than a year before the bridges are ready for use. The company is also laying 85-pound steel rail on its line between Charleston and Florence.

Savannah to Fort Gaines.

The Savannah & Southwestern Railroad Co. has applied for a charter in Georgia to build a line from Savannah southwest to Fort Gaines, about 275 miles. The line will take in the railroad of the Perkins Lumber Co., about 12 miles long, from Hagan to Jennie, Ga., and it will touch Clyde, Reidsville, Lumber City, Fitzgerald, Ashburn, Albany and other towns. The capital is \$1,000,000. The incorporators are Frank R. Durden and E. M. Frank of Savannah, Ga.; W. T. Kicklighter of Bryan county and E. M. Frank of Chatman county, and C. S. Grice, N. A. Thagard, W. G. Warnell, G. W. DeLoach, D. M. Bradley, J. H. Perkins, W. C. Perkins, C. W. Smith, J. V. Kelley, S. T. Ellis, M. A. Smith and P. M. Anderson of Tattnall county.

Electric Cars May Be Adopted.

The Washington, Frederick & Gettysburg Railway Co. of Frederick, Md., has been reorganized. President D. Columbus Kenap resigned, and Dr. Franklin Buchanan Smith was elected to succeed him. The other officers chosen are Alexander Ramsberg and Charles Wertheimer, vice-presidents; Chas. C. Waters, secretary, and Oscar T. Coblenz, treasurer. Dr.

Thomas B. Johnson, Emory L. Coblenz, John D. Hendrickson and George William Smith are the new directors elected.

The road is now operating about 15 miles of line from Frederick to Thurmont, Md., with steam locomotives. It is understood that the new management contemplates rehabilitating the property, and it may be that electric cars will be adopted.

New Line for Coal and Timber.

The Elk & Little Kanawha Railroad is a projected 16-mile line which is to be built from Gassaway, W. Va., on the Coal & Coke Railway, to a point near Rosedale, on the Little Kanawha River. It will open up a large coal and timber territory in Braxton and Gilmer counties. The route from Gassaway will be along Little Otter Creek to its source; thence along Bryan's branch of Steer Creek to a point 10 miles from Glenville, in Gilmer county. It is intimated that the line may be ultimately connected with the Little Kanawha Railway, which could be reached by building about 40 miles of additional track. C. P. Peyton of Charleston, W. Va., is engineer.

Tremont & Gulf.

The Tremont & Gulf Railway Co., which has a line from Tremont to Winnfield, La., and also from Dodson to New Rochelle, has filed a mortgage to secure \$5,000,000 of bonds, and it has also increased its capital stock from \$1,000,000 to \$5,000,000. There are now \$1,550,000 of bonds outstanding and \$2,000,000 of capital stock. Altogether the company has about 100 miles of line, including 20 miles from Jeunesboro to Sikes, which is operated under lease. Last year about 18 miles were built from Menefee to Rochelle.

Santa Fe Proposes Much Work.

According to a press report from Topeka, Kan., the Santa Fe system contemplates building a total of about 600 miles of extensions during the next four years. The Kansas Board of Railroad Commissioners has approved an issue of \$35,000,000 of bonds for the improvements, many of which will doubtless be made in Oklahoma and Texas.

Railroad Notes.

The Chicago, Rock Island & Pacific Railway, according to a dispatch from Dallas, Texas, is taking steps to build its proposed freight terminals in that city. Plans are being prepared and preliminary estimates are being obtained.

The Rock Island-Frisco lines have issued an excellent map showing the mineral resources of the different States traversed by the tracks of those systems. It is printed in colors, and displays large deposits of coal, lignite, lead, zinc and many other minerals, besides oil and gas.

The annual report of the Louisiana Railway Commission shows that the railroad trackage in that State now amounts to 4765 miles of line, exclusive of 1076 miles that are industrial roads. This is an increase of 375 miles for the year. The total mileage operated (all tracks) was nearly 6100 miles.

L. F. Loree has been elected chairman of the Kansas City Southern Railroad, succeeding Herman Sielken, who remains on the board of directors. Mr. Loree is president of the Delaware & Hudson Railroad. Mr. Sielken, it is reported, declined re-election as chairman, and nominated Mr. Loree to succeed him.

The total quantity of fluorspar marketed in this country in 1908 was 38,793 short tons, a decrease of 10,691 tons from the figures of 1907. Of the total, Kentucky produced 6323 tons, valued at \$48,642.

MINING

New Coal and Coke Development.

The MANUFACTURERS' RECORD is advised of a new coal and coke development in West Virginia to be undertaken by Francis Rock and associates of Uniontown, Pa., who have purchased 3000 acres of coal lands in Monongalia and Marion counties at \$250 per acre without improvements. With reference to the enterprise Mr. Rock telegraphs that it is proposed to construct 1000 ovens, to have a daily production of 2500 tons of coke. Mr. L. A. Phillips of Grays Landing, Pa., is the engineer in charge of construction.

Coal Dealers Elect Officers.

At the second annual convention of the Kentucky and Tennessee Coal Dealers' Association at Lexington, Ky., last week the following officers were elected: President, W. H. Farley, Paducah, Ky.; vice-president, Howell Davis, Knoxville, Tenn.; treasurer, John B. Payne, Lexington; secretary, J. E. Tabb, Louisville.

Mann's Creek Coal Land Co.

The Mann's Creek Coal Land Co. of Sewell, W. Va., has incorporated with a capital stock of \$200,000 to deal in coal and timber lands. Its incorporators include A. D. Harrah and John Q. Dickinson of Charleston; C. C. Henry, Claremont; W. A. Brown, Lawton; C. T. Jones, Oak Hill; George W. Jones, Red Star; P. M. Snyder, Mt. Hope; R. L. Walker, Cliff Top, and H. A. Moseley, Caperton.

The Malto Coal & Coke Co. of Philippi, W. Va., has incorporated with a capital stock of \$100,000. Its incorporators include H. D. Hileman, F. M. Kirk, G. S. Beckwith, James M. Gee and E. M. Kufer, all of Cleveland, Ohio.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

France Wants Printing Machinery.

P. Bergasse, 5 Rue Gretry, Paris, France, writes the MANUFACTURERS' RECORD:

"Being interested in the French printing plant "Imprimeries artistiques de Noyon," which my friend M. Schmitt, Ch.A., 8 Chaussee d'Antin, is now working on account of a society we are establishing, I would be much pleased could you make it known to printing machinery manufacturers that we would be glad to make arrangements with them about printing machinery. We shall accept on deposit new machines (specially monotype) to serve as demonstration for all interested in printing machinery. You can let it be known to American manufacturers that Noyon is one hour by rail from Paris. Machines which prove of good use will be bought by us in the year of the deposit."

Interesting Letter from Panama.

The Moin Development Co., Ole Kilgour, secretary, Cristobal, C. Z., Panama, writes the MANUFACTURERS' RECORD:

"I would like to hear from designers of Portland cement plants, manufacturers of cement-mill machinery and machinery for making concrete building material; will need drill press, 12-inch lathe, 24-inch by 15 or 18-foot lathe and planer or large shaper for repair shop, a portable sawmill, barrels and bags for packing cement and a 5000-gallon tank for storing oil fuel. We will have a position for an experienced cement mill superintendent, one with knowledge of chemistry preferred."

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

The Greers Mill.

John A. Robinson of the Apalache Mills, Arlington, S. C., and the Greers parties mentioned last week as to build a print-cloth mill at Greers will erect a building of slow-burning construction. This structure will be four stories high, 130x135 feet 10 inches, the first two floors to be for weaving, the third floor for carding and the fourth for spinning. The textile machinery, comprising 10,000 spindles and 300 looms, will be driven by electric motors, and the entire plant will be arranged to admit of ready enlargement in the future. Contract has been awarded for the cotton machinery. Lockwood, Greene & Co., 93 Federal street, Boston, Mass., are the architects in charge.

The Cotton Movement.

In his report for May 21 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 263 days of the present season was 12,870,973 bales, an increase over the same period last season of 2,216,955 bales. The exports were 7,787,198 bales, an increase of 926,373 bales. The takings were, by Northern spinners, 2,468,307 bales, an increase of 900,406 bales; by Southern spinners, 2,068,331 bales, an increase of 161,796 bales.

The Locke Cotton Mills.

The Locke Cotton Mills Co., Concord, N. C., has engaged R. L. McAllister as foreman in charge of the construction of its additional mill announced two months ago. This building will be one story high, 125x545 feet, of mill construction, with saw-tooth roof. It will be equipped with 12,000 spindles to begin with, the output to be ginghams and shirtings. Frank P. Sheldon of Providence, R. I., is the architect in charge.

Investigate Southern Electric Power.

The John W. Barlow Company of Lawrence, Mass., has a representative in the South investigating electric-power facilities with a view to building the company's proposed cotton mill. Last December the MANUFACTURERS' RECORD mentioned the company's contemplated erection of a Southern mill.

The Aquila Manufacturing Co.

The Aquila Manufacturing Co. of Aiken, S. C., has been incorporated to build the proposed Aiken mill lately mentioned. Its incorporators are John A. Seigler and R. B. Carter of Aiken, D. W. McNeal of Fayetteville, N. C., and others. The plant is to have 10,000 spindles for yarn manufacture.

The Corriher Mill.

The Corriher Mill of Landis, N. C., has been organized with a capital stock of \$100,000 to manufacture cotton yarn. C. J. Deal is president and L. A. Corriher secretary-treasurer. Messrs. Deal, Corriher, F. B. Brown, C. A. Linn, B. O. Edwards and others are the directors.

To Build at Abbeville, Ala.

The Abbeville (Ala.) Power & Manufacturing Co. has been incorporated with

a capital stock of \$500,000 by J. L. Pollard and associates to build a cotton mill and a water-power-electric plant. This plant will transmit 8000 horse-power by electricity to the cotton mill and other industries for power and lighting.

A Mill for Geneva, Ala.

The Geneva (Ala.) Power Manufacturing Co. has been incorporated with a capital stock of \$500,000 by D. O. Vaughn and associates to build a cotton mill and a water-power-electric plant. This plant will transmit 5000 horse-power to the cotton mill and to other industries for power and lighting.

The Laurens Addition.

The Laurens (S. C.) Cotton Mill will build an 80-foot extension to its present building and has awarded the contract to the Gallivan Building Co. of Greenville, S. C. At present the mill has 44,832 ring spindles and 1208 looms, producing fancy shirtings, sateens and narrow print cloths.

To Double Summerville Mill.

The Summerville (Ga.) Cotton Mill will increase its capital stock from \$150,000 to \$300,000 and add to its manufacturing facilities. Its plan is to double the present mill, which is operating 5000 ring spindles and 120 looms on duck and osnaburg production.

A Press Cloth Mill.

The Interstate Cottonseed Crushers' Association, A. D. Allen, president, Little Rock, Ark., will organize a company to build a mill for manufacturing camel's-hair press cloth. Its capital stock will be \$200,000.

Planning Big Cotton Mill.

M. E. Thornton of Hickory, N. C., is interested in a plan to locate an extensive cotton manufactory to be operated by electricity transmitted from his proposed water-power-electric plant of 6500 horsepower.

Osnaburgh and Sheeting.

The Mississippi State Penitentiary, L. Yerger, secretary, Jackson, Miss., will open proposals on June 1 for 25,000 yards of seven-ounce osnaburgh delivered and 7000 yards of sheeting, both delivered at Oakley, Miss.

Offers Cotton Mill Site.

C. F. Simmons, president of the Artesian Belt Railroad, San Antonio, Texas, offers 10 acres of land as site and a cash bonus for the erection of a cotton mill at a new town between Kirk and Macdona.

Textile Notes.

The Fidelity Manufacturing Co. of Charlotte, N. C., will install looms to weave the product of its 10,000 spindles.

The Graniteville Manufacturing Co., Graniteville, S. C., has amended its charter, increasing capital stock from \$600,000 to \$1,000,000. Its plant has 55,000 ring spindles and 1700 looms, producing sheeting, etc. T. L. Hickman of Augusta, Ga., is president.

The Adelaide Mill of Anniston, Ala., has begun the erection of an addition to be equipped for increasing capacity. It now operates 5168 ring spindles.

The Lagrange (Ga.) Cotton Mills will, it is reported, build a 54x104-foot extension and install new machinery. This company now has an equipment of 10,368 ring spindles, 132 looms, etc., for manufacturing duck and carpet yarns. It is building a 10,000-spindle mill, details of which were announced recently.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Utilizing Pine Stumps.

Editor Manufacturers' Record:

In the MANUFACTURERS' RECORD of April 29 I read an article, "Cut-over Pine Lands." As the writer says, there are thousands of acres of pine land that have been cut over, and from which the stumps will have to be removed before the land can be cultivated. He asks for a cheap method of getting out the stumps, and says it has been conservatively estimated that over \$5 worth of raw products can be made from the average pine stump. He has evidently been misinformed on this point. The estimate is entirely too high, although the wood from the pine stump is valuable for the production of oils. The wood would be worth delivered, as he says, about \$3 per cord, but it will take a good many of the average pine stumps to make a cord of wood. The wood from the stump is rich in pine oil, but the percentage of turpentine is smaller than from the lightwood taken from the tree farther from the ground. I have personally given the matter of stumps a good deal of study, and have designed a saw mounted on wheels driven by a gasoline engine to cut them off even with the ground, using the wood thus obtained for making creosote oil and other products, and if it is desired to get rid of the stump use the acid treatment, which will remove it entirely in a very few weeks at a small cost.

I do not believe it is practical to use a portable steam plant to convert the stumps into oil. From my observation and experience steam turpentine plants have not been a success, even when they have been fitted up with all appliances necessary to distill and refine the products on a large scale. I do not think it would be possible to have a portable plant large enough to make it pay. I have been all through the mill, from apprentice boy to master mechanic, and have come to the opinion that the profit to be derived from this class of work is in the manufacture of creosote oil and impregnating the poorer classes of timber with it. Wherever there are any of these cut-over lands there are generally quantities of slash, sap and black pines that can be had at small cost, and in this way not only can the tops of the stumps, all the waste lightwood and the fat parts of the slab and board waste at the mills be utilized, but the poorer grades of lumber can be more than doubled in value to be used as railway ties, paving blocks, crossarms, fenceposts, etc.

A creosote plant for general creosoting work making its own creosote oil from waste pine wood and stumps, located at some good location, could use all the stumps cut as I have described within a radius of 100 miles, and the balance of the stump could be cleared out of the ground by using the acid, leaving the ground ready for cultivation. Of course, in the distillation of the creosote oil there are the by-products, such as turpentine, pine tar, asphalt, varnish stains, wood dyes, rosin oil, etc., but the main object would be the making of creosote oil and treating the timber.

I don't think it will ever pay to try to use the roots of the stumps. The expense of pulling, cutting, splitting and cleaning makes it too expensive.

A. J. McARTHUR.

Springfield, Ga.

Will Establish Box Factory.

Current reports from Rayville, La., announce that T. C. Mengel of Louisville, Ky., is promoting the organization of the

Richland Lumber Co. for the purpose of erecting a large lumber and box plant at Rayville and developing about 13,000 acres of hardwood timber lands in Richland parish. It is stated that preliminary details have been arranged for the construction of the plant, which will be of steel on concrete foundations. It will be equipped with modern machinery, electric-light plant, etc., and will cost about \$200,000. The company has secured a right of way three and one-half miles in length, and will construct a railroad from the plant to the center of its timber tract. It will also erect a number of dwellings for the use of its employees. The product of the plant will include boxes of various kinds, especial attention to be given to the manufacture of tobacco boxes.

Cypress Lumbermen Meet.

At a meeting of the Southern Cypress Manufacturers' Association at New Orleans last week changes in grading rules were discussed and delegates appointed to attend the American Lumber Traders' Congress at Chicago on June 7. The following officers were elected: Frederick K. Wilbert, Plaquemine, La., president; S. M. Bloss, Garyville, La., first vice-president; R. H. Knox, Savannah, Ga., second vice-president; George W. Dodge, Napoleonville, La., treasurer, and George E. Watson, secretary, who was named by the board of directors.

To Erect Plant in Arkansas.

It is announced that the Michigan-Arkansas Lumber Co. of Detroit is arranging details for the erection of a large lumber-manufacturing plant at Jonesboro, Ark., which it expects to have ready for operation by September 1. The company, it is stated, recently purchased about 43,000 acre of St. Francis River timber land in Poinsett county for development.

The Leaf River Lumber Co. of Petal, Miss., is reported to have secured a contract from Hoshall & McDonald Bros. of New Orleans for 500,000 feet of oak, ash, poplar and cypress lumber in lengths of from 10 to 16 feet.

Hillsborough County Resources.

The Tribune of Tampa, Fla., in its edition of May 23 presents an interesting illustrated review of the general resources and attractions of Hillsborough county, of which Tampa is its chief city. Besides its great cigar-manufacturing industry at Tampa, the county possesses peculiar advantages as a center for tourists, and has a number of resorts, including the magnificent Tampa Bay Hotel. It has an area of 837,760 acres, located on the Gulf of Mexico, whose branches, reaching into all sections of the county, make possible the development of an extensive water commerce.

Georgia Municipalities.

The League of Georgia Municipalities will meet at Columbus this week, when addresses will be made by Messrs. Rhodes Browne of Columbus, Miller S. Bell of Milledgeville, J. L. Fincher of Fort Valley, Thomas Clayton of Atlanta, W. C. Campbell of Columbus, Dr. M. Ashby Jones, George P. Seldon of New York, W. R. Joyner of Atlanta, W. F. Dorsey of Athens and Charles W. Hopkins of Atlanta.

General information concerning the National Association of Cement Users, together with a full list of members, has been published in pamphlet form. A summary of the convention proceedings in Cleveland during last January is also given. Copies may be obtained from the association's office, Harrison Building, Philadelphia, Pa.

MECHANICAL**The Peerless Air Compressor.**

People who are interested in improved air-compressing equipment will find their attention attracted to the accompanying illustration of the Peerless duplex steam-driven air compressor, type B, manufactured by the American Compressor &

and rings renewed without dismantling the machine. The crankshaft and connecting rods are made of the highest grade of forged steel, the latter having phosphor-bronze boxes; the crossheads and guides of the round type, with suitable adjustments and phosphor-bronze shoes. The arrangement of the water jackets is such that the entire cylinder head and air valves are water-cooled. Belt air compressors

weights to be determined of several different items of material with utmost ease and accuracy. A simple movement of hand-lever transfers, when desired, all load from the knife edges of the scale to the trolley track frame, and then operation is the same as with ordinary trolley.

The former method of crane weighing consisted of hanging a scale device on the hook. This required a special man to read,

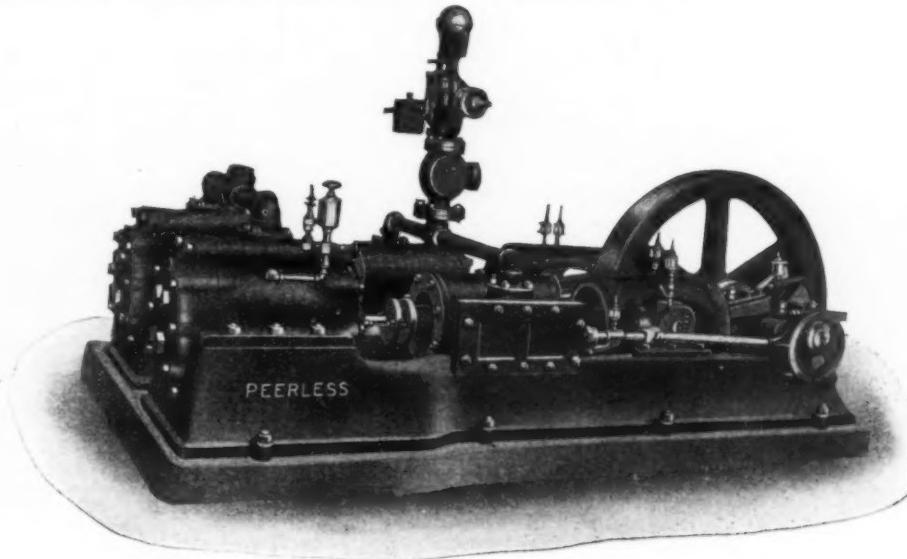
by the manufacturer for the warehouse of the Scully Steel & Iron Co. at Chicago.

A New Ferracute Press.

The press represented by the accompanying illustration was recently built by the Ferracute Machine Co., Bridgeton, N. J., from designs of Oberlin Smith, president and mechanical engineer of the company. The special work for which the machine was designed is the drawing and forming of shallow work up to 20 inches diameter and one inch deep in one-sixteenth-inch sheet steel. The forming operation required considerable pressure, as the heavy sheet metal had to flow or be "coined," which explains why a press of the coining type was used.

The distance between columns is wider than in an ordinary coining press, but notwithstanding this fact, the machine is smaller and more compact than the conventional drawing press, in which work of this nature is usually performed. The ram is forced upward by powerful steel toggles at the back of the press, and has a stroke of two inches. The pressure exerted by the ram when it reaches the top of its stroke is 450 tons.

A noticeable feature is the spring holding and clamping attachment shown on the top of the press. A number of heavy steel springs encased therein exert a total pressure of 60 tons on a steel spindle or stem that projects centrally down through the head. This stem (corresponding to the blank holder of a drawing press) may have as much vertical motion as the ram, but, as shown in the engraving, is adjusted for one-inch motion. An adjusting wedge is interposed between the head and the upper part of the frame, the head being adjusted vertically by means of the bolt shown just above it, which bolt moves the wedge in and out. An effective friction



PEERLESS DUPLEX STEAM-DRIVEN AIR COM PRESSOR.

Pump Co., home offices and plant at 718 East Pratt street, Baltimore, Md., and general sales offices at 26 Cortlandt street, New York.

The machine is built in all sizes, single, duplex and two-stage, either belt, steam or electric driven. Its essential features are: Built in solid box bedplate pattern, therefore self-contained, compact and rigid; requires no special sub-base or sole-plate, and has no overhanging cylinders; built to templates and jigs, therefore all parts are interchangeable. The design is

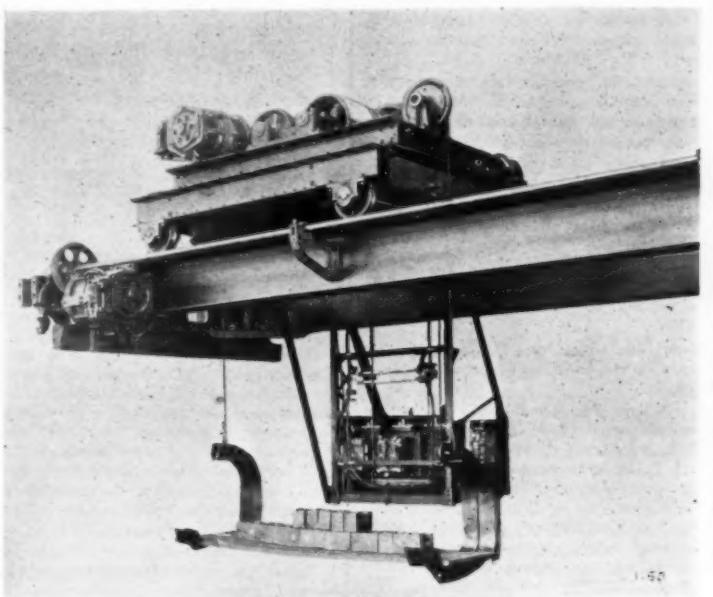
are equipped with unloading governors of modern design. Steam machines are equipped with either speed governor or combined speed and pressure governors, as may be required. Peerless air compressors are sold under an absolute guarantee against defects in workmanship or materials, and a further guarantee as regards economy and efficiency.

Three-Motor Electric Crane.

Herewith is a view of a three-motor electric traveling scale crane designed and

enter and calculate weights and deduct the tare, a process much more laborious than with the new arrangement, which also eliminates the liability of personal error. The scale device on hook also occupied considerable head room, which was often a consideration of importance.

An open-side platform is furnished, as shown, for carrying long pieces, such as rods, bars, etc. The design of this platform is made to suit the material to be



NEW DESIGN WEIGHTING CRANE.

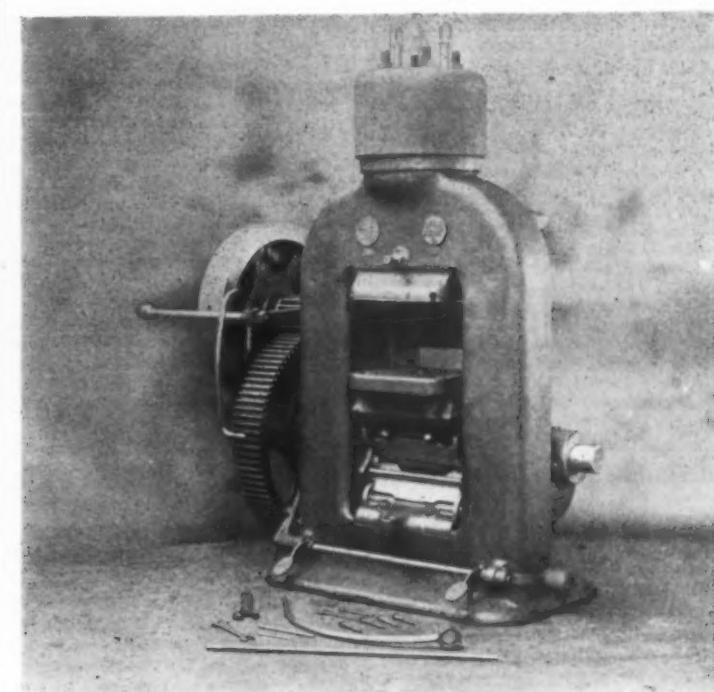
very simple, and every working part is accessible. Each valve and seat can be instantly removed from the outside without the use of special wrench and without disturbing any other portion of the machine. The air valve seats fit into the heads by means of ground joints, thus eliminating any special gaskets. The stuffing-boxes are readily accessible for repacking. On steam compressors the steam cylinder heads are fitted to cylinders with ground joints. The heads can be removed, so that cylinder can be inspected, when necessary,

manufactured by the Whiting Foundry Equipment Co., Harvey, Ill. The crane's movements are operated by electric power. The novel feature consists in the application of the scales for weighing material, which are supported on trolley truck frame and carry the hoisting mechanism mounted on independent steel framework. The scale beams are in the cage suspended from the trolley, and readings are taken and recorded by operator. There are three beams, two scale beams with self-recording poises and one tare beam, enabling scale

handled. A crane of this type is most useful in loading material, checking invoiced weights, and in loading for shipment, for inventory, etc.

An application has been made for patent covering essential features of this design.

Six of these cranes, five tons capacity, 37 feet 10 $\frac{1}{4}$ inches span, operated by alternating current, have just been completed



A NEW FERRACUTE PRESS.

clutch of modern design connects the flywheel to the shaft when the treadle is depressed, the clutch being automatically disconnected at the end of the stroke unless the treadle is locked down.

The columns are solid, each having a sectional measurement of 13x14 inches. The press occupies a floor space of 108x54 inches, is 110 inches high, and weighs 22,500 pounds.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECT

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

BRIDGES, CULVERTS, VIADUCTS

Bluefield, W. Va.—Norfolk & Western Railroad, C. S. Churchill, chief engineer, Roanoke, Va., reported to build third bridge over tracks in East Bluefield.

Knoxville, Tenn.—Bridges will be opened June 10 for construction of reinforced-concrete viaduct on Asylum avenue; estimated cost \$67,000; plans by W. H. Burk, consulting engineer, of Knoxville; John W. Fenniken, chairman Board of Public Works. (Further acts recently mentioned. See "Machinery Wanted.")

Little Rock, Ark.—St. Louis, Iron Mountain & Southern Railway (Missouri Pacific system), M. L. Byers, chief engineer maintenance of way, St. Louis, Mo., and Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill., have, it is reported, had surveys made for steel viaduct to be constructed across tracks near Little Rock.

Memphis, Texas.—Altus, Roswell & El Paso Railway, Edward Kennedy, Altus, Okla., president, will, it is reported, construct two bridges in connection with railroad construction work, one across South Fork River and another across Stump Creek; 2000 feet of former have been completed. (See "Railway Shops, Terminals, Roundhouses, Etc.")

Pond Creek, Okla.—Chicago, Rock Island & Pacific Railway, J. B. Berry, chief engineer, Chicago, Ill., is reported to construct bridge across Salt Fork River; cost \$25,000.

Prescott, Ark.—A. M. Denham, county judge, is considering construction of concrete bridge across Garland Creek.

Scottsville, Ky.—City will receive bids until May 29 for bridge construction. John D. Spears, Mayor. (See "Machinery Wanted.")

Van Alstyne, Texas.—Grayson County Commissioners awarded contract to M. S. Hasle, Jr., Bridge Co., Dallas, Texas, to construct 60-foot steel bridge across Sister Grove Creek, near Van Alstyne.

Washington, D. C.—Congress will appropriate \$85,000 (to become available July 1) for completion of concrete bridge over Piney Branch at extension of 16th street; bids will soon be opened. Henry B. F. Macfarland and

others, Commissioners D. C. (Recently mentioned.)

Weatherford, Texas.—City will construct 100-foot concrete bridge; bids to be opened June 10. N. Werenskiold, Dallas, Texas, is consulting engineer; C. W. Camp, City Engineer. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

El Reno, Okla.—El Reno Packing & Provision Co. is correct title of company lately noted; incorporated with capital stock of \$500,000 by E. E. Blake of El Reno, C. G. Horner of Guthrie, Okla.; B. S. Cusey, Edward Butterworth and John Tippett of Chicago, Ill.; will build packing plant with daily capacity of 1000 hogs and 200 cattle; plans call for fertilizer plant, glue factory and oil refinery; John Tippett, 808 Monadnock Bldg., Chicago, Ill., in charge of construction.

Enid, Okla.—Farmers' Union is organizing People's Packing Co. to establish packing plant to cost \$50,000.

Oklahoma City, Okla.—Morris & Co., Chicago, Ill., will, it is reported, establish plant at Oklahoma City to cost \$500,000; proposed capacity, 1600 cattle, 2500 hogs and 1500 sheep daily; construction reported to begin at once; company telegraphs Manufacturers' Record: "Plans not sufficiently formulated to give information."

St. Louis, Mo.—St. Louis Independent Packing Co., Gustave Bischoff, president, will expend \$300,000 for enlarging plant; will increase capital stock from \$50,000 to \$1,250,000; will erect number of buildings and double capacity of cold storage.

Taft, Texas.—Joseph F. Green, manager and part owner, is in charge of Charles P. Taft packing-plant proposition mentioned recently; will purchase the necessary machinery.

Shreveport, La.—Board of Trade and Progressive League are promoting establishment of meat packery.

Tulsa, Okla.—Success Canning Co. Incorporated with \$10,000 capital stock by Joseph H. Long, Ella Long and Peter Deltzman.

CLAYWORKING PLANTS

Kingsland, Ga.—Brick.—C. Swanson will establish brick plant. (See "Machinery Wanted.")

Paducah, Texas—Bricks.—R. L. Bushell, Stanford, Tenn., contemplates establishment of brick plant. Mr. Bushell may be addressed care of Commercial Club, Paducah.

Seguin, Texas—Paving Bricks.—Seguin Vitrified Paving & Face Brick Co., lately reported incorporated with \$75,000 capital stock and to improve plant, will install 300-horse-power boilers and engine, electric equipment, clay machinery, drier, etc., for daily output of 40,000 vitrified paving bricks. (See "Machinery Wanted.")

Vernon, Ala.—Bricks.—Vernon Improvement Land & Brick Co. organized with capital stock of \$10,000; J. C. Milner, president.

Vernon, Texas—Bricks.—Vernon Land, Improvement & Brick Co. incorporated with \$10,000 capital stock by C. D. Pennington and others.

Washington, D. C.—Fire-bricks.—Refractory Fire-Brick Co. incorporated with capital stock of \$350,000 by J. L. Cobahan and others.

Cisco, Texas.—Arilla Coal Co. will develop coal mines on more extensive scale.

Delight, Ark.—B. M. Linville reported to develop 70 acres of land underlaid with coal deposits.

Kansas City, Mo.—Pittsburg Northern Coal Co. incorporated with \$75,000 capital stock by J. R. Crowe, H. D. Buchanan and I. M. Fleming.

Madison, W. Va.—Crescent Coal & Lumber Co. purchased for development 17,155 acres of coal land on Big Coal River; \$2,500,000 of bonds issued.

Monongalia County, W. Va.—J. C. Work, Francis Rocks, Peter E. Shepard and B. J. Tuit, all of Uniontown, Pa., purchased 3000 acres of coal land in Monongalia and Marion counties at \$250 per acre; propose building 1000 ovens with daily output of 2500 tons. L. A. Phillips, Grays Landing, Pa., is engineer in charge.

Philippi, W. Va.—Malto Coal & Coke Co. incorporated with \$100,000 capital stock by H. D. Hillman, F. M. Kirk, G. S. Beckwith, James M. Gee and E. M. Kufer, all of Cleveland, Ohio.

Sewell, W. Va.—Mann's Creek Coal Land Co. incorporated with \$200,000 capital stock by A. D. Harral and John Q. Dickinson, both of Charleston, W. Va.; C. C. Henry, Claremont, W. Va.; W. A. Brown, Lawton, W. Va., and others.

West Virginia.—Cherry Camp Coal & Coke Co., 47 East Main St., Uniontown, Pa., has purchased 650 acres of coal land in West Virginia.

CONCRETE AND CEMENT PLANTS

Searcy, Ark.—Searcy Concrete Block & Paving Co. Incorporated with \$10,000 capital stock by J. H. Rose, B. K. Deener, L. Harp, W. S. Booth and others.

Sparta, Tenn.—Prof. Perry L. Hobbs of Cleveland, Ohio, and associates will, it is reported, build Portland cement plant to cost \$1,000,000; understood they have purchased 2000 acres cement-rock land.

Wilson, N. C.—Contentnea Concrete Co. Incorporated with \$15,000 capital stock by Thos. Felton, Sr., M. J. Felton, T. R. Felton and J. W. Felton.

COTTON COMPRESSES AND GINS

Americus, Ga.—Farmers' Cotton Oil Co., G. W. Riley, general manager, awarded contract to Jay & Pratt, Shellman, Ga., for construction of gin: 38x68 feet; brick; mill construction; cost \$4000; plans by Continental Gin Co., Atlanta, Ga.; will install 4-80 gins, increasing capacity of plant to 125 bales daily; equipment purchased. (Lately mentioned.)

Celeste, Texas.—Union Gin Co., F. H. Aoen, president, and J. J. Thompson, secretary, will erect five-stand 70-saw cotton gin; construction to begin at once. (See "Machinery Wanted.")

Fort Smith, Ark.—Fort Smith Compress Co. will rebuild cotton compress recently reported broken.

Longview, Texas.—Herman Loeb, Mineola, Texas, will establish cotton compress; capacity, 75,000 to 100,000 bales annually.

Industry, Texas.—R. L. Fordtran will build cotton gin: 6ix24-foot frame building, with metal roof, two stories high, costing \$2000; will install two 70-saw gins and pneumatic-air distribution costing \$1000; daily capacity, 20 bales cotton; will open machinery bids July 15. (See "Machinery Wanted.")

Kirkland, Ga.—Company organized by J. L. Carter, John Paulk and Doll Kirkland to establish cotton gin and grist mill.

Kyle, Texas.—Kyle Oil & Gin Co. has increased capital stock from \$20,000 to \$60,000.

Lavernia, Texas.—Lavernia Gin & Milling Co. Incorporated with capital stock of \$10,000 by Thos. H. Abbott, Jr., Emil E. L. Ense and Gus Varpathi.

Milford, Texas.—Bounds Gin Co. incorporated with \$10,000 capital stock by James A. Weaver, J. F. Norsworthy and Arthur Bounds.

Monticello, Miss.—John H. Harrington and associates will build cotton compress to cost \$18,000.

Northport, Ala.—Northport Company incorporated with \$25,000 capital stock; E. M. Brown, president; R. T. Harper, vice-president; P. B. Traweek, secretary and treasurer; will take over compress of E. M. Brown.

Prescott, Ark.—R. P. Arnold and others organizing company to establish cotton gin. (See "Ice and Cold-Storage Plants.")

Robinson, Ga.—H. H. Cannon will establish three-stand cotton gin.

Waxahachie, Texas.—Farmers' Gin Co. organized with L. J. Paul, president; S. H. Moses, vice-president; J. C. Culbertson, secretary; W. E. Coleman, assistant secretary.

COTTONSEED-OIL MILLS

Akron, Ala.—Akron Mill & Fertilizer Co. Incorporated with \$12,000 capital stock by T. W. Coleman and others.

Columbus, Ga.—Georgia Cotton Oil Co. main office, New York, will erect addition to mill; G. Everett Strupper, company's manager at Columbus.

Donaldsonville, Ga.—Donaldsonville Cotton Oil Co. awarded contract to Buckeye Brass and Iron Works, Dayton, Ohio, for erection of oil mill and guano factory.

Itasca, Texas.—Itasca Cotton Oil Co. will rebuild mill and make improvements; new structure partly two stories; pressed brick; 65x15 feet; capacity will be increased 10 tons daily; will install 12 hinters, four French hydraulic presses and cleaning machinery; cost of improvements, \$25,000; W. J. Buchanan, manager.

Jackson, Tenn.—H. E. Thomp is promoting establishment of \$75,000 cotton oil mill.

Memphis, Tenn.—Memphis Cotton Oil Co., B. B. Harvey, president, will rebuild plant reported burned; loss \$150,000.

Hastings, Okla.—C. C. Eppes will install delining plant.

Kyle, Texas.—Kyle Oil & Gin Co. has increased capital stock from \$20,000 to \$60,000.

Louisville, Ky.—Louisville Cotton Oil Co. has plans by Fred Erhart, Louisville, for erection of refinery; three stories; brick; cost of plant, \$20,000; cost of machinery, \$35,000. (Previously mentioned.)

ELECTRIC-LIGHT AND POWER PLANTS

Abbeville, Ala.—Abbeville Power & Manufacturing Co. Incorporated with \$500,000 capital stock by J. L. Pollard, C. J. Owens and others to build water-power-electric plant on Abbey Creek, eight miles north of Abbeville; will develop 8000 horse-power for transmission by electricity to Abbeville, Dothan, Eufaula, Wells and Columbia, each in Alabama; Fort Gaines and Blakeley, in Georgia; will also build cotton mill; has engaged D. G. Zeigler & Co., Mutual Life Bldg., Jacksonville, Fla., as consulting engineers. (See "Textile Mills.")

Basic City, Va.—City will receive bids June 17 for construction of hydro-electric-light plant. (Lately mentioned. See "Machinery Wanted.")

Bristol, Tenn.—Bristol Gas & Electric Co. will install steam turbine with capacity of 1500 horse-power and gasholder.

Calvert, Texas.—Calvert Water, Ice & Electric Light Co. will make improvements to plant, expending \$40,000; G. W. Sonnenfeld, Dallas, Texas, has contract to erect new building.

Dawson, Texas.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., estimating on construction of electric-light plant; will use gasoline engines and dynamos. (See "Machinery Wanted.")

Delight, Ark.—John Hill will construct electric-lighting plant.

Dothan, Ala.—City has engaged J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., to design and supervise construction of electric-light and water-works systems, for which \$20,000 bond issue was recently reported voted; H. W. Lisenby, Clerk. (See "Water-works.")

Fayetteville, W. Va.—R. H. Dickinson has applied for franchise to construct and operate electric-light system. W. L. Lee, Mayor.

Geneva, Ala.—Geneva Power Manufacturing Co. Incorporated with capital stock of \$500,000 by D. O. Vaughan, J. R. Clark, D. G. McInnis, D. H. Morris and A. M. McKinnon; will build hydro-electric plant on Double Bridge Creek, six miles north of Geneva; will transmit 5000 horse-power by electricity to Geneva, Enterprise, Hartford, Coffey Springs, Samson and other towns; will also build cotton mill; has engaged D. G. Zeigler & Co., Mutual Life Bldg., Jacksonville, Fla., as consulting engineers. (See "Textile Mills.")

Gonzales, Texas.—Gonzales Electric Light & Power Co. has contracted with Westinghouse Electric & Manufacturing Co., Pittsburgh, Pa., for 350 K. W. generator to develop about 400 horse-power; will furnish power for cotton mill and other local industries.

Heflin, Ala.—J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., are now preparing plans for proposed water-works and electric-light system at Heflin.

Idabel, Okla.—Idabel Light & Power Co. Incorporated with \$10,000 capital stock by H. C. Morris, Charles Smith, W. B. Hinton, all of Idabel, and E. B. Herndon, Millerton, Okla., and others.

Jacksonville, Fla.—D. G. Zeigler, Mutual Life Bldg., has organized Southern Hydro-Electric Construction Co., with capital stock of \$1,000,000, for general construction, and especially development and financing of water-power-electric plants; understood that Pennsylvania capitalists are interested.

Jasper, Fla.—D. G. Ziegler & Co., Mutual Life Bldg., Jacksonville, Fla., have been retained as consulting engineers for proposed hydro-electric plant on Allapaha River, seven miles from Jasper; plan is to develop 10,000 horse-power for transmission by electricity to Jasper and to Valdosta, Quitman, Lake Park and Statenville, in Georgia; will incorporate company with capital stock of \$1,000,000.

Kansas City, Mo.—People's Ice Co. will rebuild power-house reported burned at loss of \$100,000. A. J. Fenney, 603 East 8th St., manager.

Lawrenceville, Ga.—North Georgia Electric Co., W. A. Carlisle, president, Gainesville, Ga., is considering furnishing electricity to Lawrenceville from plant at Gainesville; estimated that construction of cable supported by steel towers will cost \$15,000.

Leesburg, Fla.—J. Y. Clark, lately applying for electric-light franchise, is president of Leesburg Ice Co.; will erect 40x60-foot building of concrete construction at cost of \$150,000; will install one or two direct-connected 35 or 50-kilowatt 230-volt units, etc.; Mr. Clark, architect in charge. (See "Machinery Wanted.")

Mammoth Spring, Ark.—Mammoth Spring Electric & Power Co. incorporated with \$100,000 capital stock by E. R. Parham, F. M. Daniel, E. C. Bellamy and Frank F. Hill.

Oklahoma City, Okla.—Oklahoma Gas & Electric Co. proposes to expend \$60,000 in improvements to electric and gas system; betterments include installation of 3000-horse-power generator and \$20,000 switchboard in power-house, extension of electric-light wires, laying of 40 miles of additional gas mains, making total 100 miles, etc.; A. H. Huey, Chicago, Ill., vice-president of company, now registered at Theardgill Hotel, Oklahoma City.

Searcy, Ark.—Searchlight Power & Electric Co., Louis Lorch, president, reported to build power-house.

Sumter, S. C.—W. E. Brunson will develop water-power, as reported last week; will probably expend \$20,000 for property and development, machinery, etc.; expects to transmit 300 horse-power by electricity for power and lighting. (See "Machinery Wanted.")

Taft, Texas.—Joseph F. Green, manager and part owner, is in charge of Chas. P. Taft electric-light-plant proposition and will buy the necessary machinery.

Tulsa, Texas.—Tulsa Light & Ice Co. incorporated with \$10,000 capital stock by J. W. Schwarz, J. E. McCune and E. D. Smith.

Waycross, Ga.—City's bond election to be held June 19 to vote on municipal ownership of electric-lighting plant, as recently stated, will also decide upon issuance of \$25,000 of bonds for establishment and operation of plant; is considering purchasing plant of Waycross Electric Light & Power Co.

Wheeling, W. Va.—Warwood Water & Light Co. incorporated with \$50,000 capital stock by B. W. Peterson, W. J. McCullough, John A. Moore and others.

Wheatley, Ark.—Wheatley Rice Mill & Power Co. awarded contract to Hulen & Lesh, Memphis, Tenn., to erect power-house and other buildings. (See "Miscellaneous Manufacturing Plants.")

FLOUR, FEED AND MEAL MILLS

Durant, Okla.—Farmers' Gin & Manufacturing Co. awarded contract for erection of 24x40-foot frame building, with ironclad roof; cost \$2000; will install 9x24 meal and chop mills, with bolter and cleaning machinery. (Recently erroneously mentioned as Collier Bros.)

Fort Worth, Texas.—Hood County Mill & Elevator Co. incorporated with \$24,000 capital stock by Kirk D. Holland, H. P. Holland and James A. Walkup.

Johnson City, Tenn.—Model Mill Co., J. W. King, president, Bristol, Va.-Tenn., will erect flour and meal mill at Johnson City; 42x120 feet; two stories; approximate cost of buildings, \$30,000; cost of machinery, \$15,000; plant to have daily capacity of 400 barrels flour and 2000 barrels meal; bids for machinery will be opened in 30 days. (Lately incompletely mentioned. See "Machinery Wanted.")

Kirkland, Ga.—Company organized by J. L. Carter, John Paulk and Doll Kirkland to establish grist mill and cotton gin.

McKenzie, Tenn.—J. J. Fuqua will establish 100-barrel flour mill; will install two generators, two wheat cleaners, roll exhaust and other machinery; equipment purchased from the Wolf Company, Chambersburg, Pa.

Prescott, Ark.—R. P. Arnold and others organizing company to establish grist mill. (See "Ice and Cold-Storage Plants.")

Stanley, Va.—Stanley Mill Co. will erect plant to replace burned structure.

Texarkana, Ark.—J. L. Farley of Missouri is reported as to build flour mill; natural gas for power fuel.

FOUNDRY AND MACHINE PLANTS

Chattanooga, Tenn.—Iron and Wire, etc.—Chattanooga Iron and Wire Works will increase capital stock from \$10,000 to \$25,000; will establish department for sheet-metal work, and later add a foundry; will manufacture ornamental and structural-iron and steel work and wire work; R. C. Leib has been elected president and general manager; J. D. Wilkins is secretary.

Clarendon, Texas—Farm Machinery.—Jenkins-Caraway Company, reported incorporated lately (under "Miscellaneous Enterprises") with capital stock of \$12,000, will manufacture farm machinery and tools; will erect fireproof building of brick, 75x15 feet, costing \$10,000; will also deal in automobiles, etc.; W. T. McFarlan, president; J. B. Jenkins, general manager; F. E. Caraway, secretary-treasurer. (See "Machinery Wanted.")

El Reno, Okla.—Stoves, etc.—El Reno Foundry & Machine Co., H. Bremer, president, will erect additional plant for manufacture of stoves.

Georgetown, Ky.—Harvesting Machinea.—Crosthwaite Harvesting Co. incorporated with \$15,000 capital stock; D. B. Knox, president; Milligan Fleming, vice-president; Victor Howard, secretary and treasurer; will manufacture patented grain-harvesting machine invented by John P. Crosthwaite.

Houston, Texas—Car Works.—C. C. Waller of Dallas, Texas, has taken option on 20 acres of land at \$5000, agreeing, if purchase is effected, to establish car and machine shop, costing \$300,000.

Hickory, N. C.—Babbitting Machines.—J. M. Maynard has invented machine for babbittting boxes and pulleys; contemplates arranging for manufacture by plants already equipped. (See "Machinery Wanted.")

Leaksville, N. C.—Foundry.—Leaksville Spray Foundry Co. is being organized to establish foundry, manufacture stoves, etc. (See "Machinery Wanted.")

Macon, Ga.—Plows.—International Engine Plow Co. incorporated with \$100,000 capital stock by Eugene Stebbings, Macon; Fred C. McMillan and A. E. Hollingsworth of Des Moines, Iowa.

Memphis, Tenn.—Newspaper Machines.—The Assembling Machine Co. incorporated with \$20,000 capital stock by Claude D. Curry, Albert W. Lewis, J. L. Thomas and others; will manufacture machine for inserting newspapers, books, etc.

Tuscaloosa, Ala.—Machinery.—J. D. Hilger, St. Paul, Minn., has arranged with Strickland Bros. for manufacture of Mexican fiber machines in connection with their machine shop; present plant will be enlarged.

GAS AND OIL DEVELOPMENTS

Baltimore, Md.—Eureka Oil Co. incorporated by Harry T. Geissdaffer and Allan Cleveland, both of 228 St. Paul street, and Samuel T. Briggs.

Baltimore, Md.—Gaspipe Line.—S. Dayles Ward, president of Continental Trust Co., Baltimore and Calvert Sts., announces proposed gaspipe line, lately reported, will be constructed by Seaboard Gas Co., and that Consolidated Gas, Electric Light & Power Co. will act only as distributing agent; proposition contemplates laying 450 miles of 20-inch pipe from West Virginia to Baltimore, in two lines of 225 miles each; pumping station at wells to have 25,000 horse-power; 50,000 tons of steel required for pipe line; latter to have daily capacity of 70,000,000 to 80,000,000 feet; in order to distribute gas the Consolidated company would expend from \$1,000,000 to \$2,000,000 for improvements in existing equipment. For information address Mr. Warfield. Cost of pipe lines estimated at \$12,000,000 to \$15,000,000.

Beaumont, Texas.—Gulf Pipe Line Co. will double daily pumping capacity of equipment conveying oil from Glenn pool field of Oklahoma to Port Arthur; will either increase power of pumping stations or build pipe line paralleling present line; capacity is 15,000 barrels of oil daily.

Bristol, Va.-Tenn.—Holston Oil & Gas Co. incorporated with \$20,000 capital stock; Josiah Smith, president, Chester, Pa.; W. W. Bourne, secretary and treasurer, Bristol.

Caddo Parish, La.—Louisiana Petroleum Co. incorporated with \$100,000 capital stock; George E. Mengel, president; W. F. Kirby, vice-president; Lucien W. Coy, Jr., secretary and treasurer, all of Little Rock, Ark.; will develop 10 acres of land in Caddo parish.

Charleston, W. Va.—Raven Run Oil Co. incorporated with \$60,000 capital stock by John Davidson, T. C. Hall, J. C. Malone and others.

Enid, Okla.—Wichita Natural Gas Co. of Wichita, Kan., will pipe natural gas to Enid to supply 6000 dwellings.

Frostburg, Md.—Northern Natural Gas Co. incorporated with \$100,000 capital stock by Justin D. Northup, Cumberland, Md.; Howard V. Thomas and Howard A. Foreman, both of Buffalo, N. Y., and others.

Houston, Texas.—Ellie Oil & Gas Co. incorporated with \$6000 capital stock by George Richardson, John P. Lee, George Hagelstein and others.

Huntington, W. Va.—Newton Oil & Gas Co. incorporated with \$50,000 capital stock by J. M. McCoach, Frank P. Swan, F. L. Whitaker and others.

Lamont, Okla.—Lamont Gas & Oil Co. incorporated with \$5000 capital stock by Ed Gillie, A. C. Thompson, A. Settengreen and others.

Muskogee, Okla.—George Bell Oil Co. incorporated with \$12,000 capital stock by R. W. Leftwich, M. E. Moore and L. B. Duryea.

New Iberia, La.—Central Oil Co. incorporated with \$100,000 capital stock by James B. Akers, H. Selby Sanders, W. B. Lathrop and others.

Paris, Texas.—Red River Oil Co. incorporated with \$300,000 capital stock; S. J. Wright, president; G. W. Blakeney, vice-president; B. J. Baldwin, secretary and treasurer.

Parkersburg, W. Va.—Dixie Oil & Gas Co. incorporated with \$25,000 capital stock by J. M. Hughes, K. B. Stephenson, W. J. David son and others.

Port Norfolk, P. O. Portsmouth, Va.—Portsmouth Gas Co., Portsmouth, R. C. Marshall, president, will extend mains to Port Norfolk.

Salem, W. Va.—Simcoe Oil & Gas Co. incorporated with \$200,000 capital stock by E. Strother, Salem; John B. Strother, Williamson, W. Va., and others.

Tahlequah, Okla.—Wildrose Oil Co. incorporated with \$25,000 capital stock by Frank G. Martin, B. P. Martin, both of Tahlequah, and Ernest B. Huston, Independence, Kan.

Tulsa, Okla.—Ajax Oil Co. incorporated with \$10,000 capital stock by D. R. Fant, J. N. Goodbeck and A. L. Lamb.

Welsh, La.—Gulf Coast Oil Co. incorporated with \$10,000 capital stock; R. F. Welchart, president; C. C. McRae, vice-president; A. A. Brush, secretary; J. R. Read, treasurer.

West Virginia.—Ohio Fuel Supply Co., Columbus, Ohio, will, it is reported, construct 18-inch pipe line from Sugar Grove, Ohio, to West Virginia gas fields; will cross Ohio River at Ravenswood, W. Va.; cost estimated at \$1,000,000.

Winchester, Va.—Interstate Natural Gas Co., Charleston, W. Va., has applied for franchise to furnish Winchester with natural gas for heating and lighting.

ICE AND COLD-STORAGE PLANTS

Calvert, Texas.—Calvert Water, Ice & Electric Co. awarded contract to G. W. Sonnenfeld, Dallas, for rebuilding and improvements to plant; cost \$40,000.

Elgin, Tenn.—Elgin Cold Storage & Trading Co. incorporated with \$2500 capital stock by S. J. Norris, Thomas Williams, F. H. Lawhorn and others.

Mansfield, La.—Mansfield Ice Co. incorporated with \$30,000 capital stock; J. L. Logan, president; C. W. Page, secretary.

Newport, Tenn.—Newport Bottling Works will install ice-manufacturing plant; machinery not yet purchased. (See "Machinery Wanted.")

Onancock, Va.—Henry F. Parks and Horace Wiltbank will establish ice and electric-light plant.

Owensboro, Ky.—H. C. Shaner, Monterey, Mexico, has contract to erect ice plant and brewery at Owensboro.

Prescott, Ark.—Company is being organized with \$20,000 capital stock by R. P. Arnold, M. W. Greson, both of Prescott; N. L. Harmon, Upper Sandusky, Ohio, and others to establish 10-ton ice plant, cold-storage plant, grist mill and cotton gin.

Rockwall, Texas.—Rockwall Light Co. and others will organize company with \$20,000 capital stock to establish ice plant.

Savannah, Ga.—I. T. Goodrich Company incorporated to continue established enterprise; will install 20-ton refrigerator ice machine.

Taft, Texas.—Joseph F. Green, manager and part owner, is in charge of Chas. P.

Taft ice-plant proposition and will buy the necessary machinery.

Tulsa, Texas.—Tulsa Light & Ice Co. incorporated with \$10,000 capital stock by J. W. Schwarz, J. E. McCune and E. D. Smith.

IRON AND STEEL PLANTS

Bessemer, Ala.—Rolling Mill.—Tennessee Coal, Iron & Railroad Co., George G. Crawford, president, Birmingham, Ala., states there is no truth in recent report regarding improvements at Bessemer rolling mill.

Bueno Vista, Va.—Iron Furnace.—Bueno Vista Iron Co. proposes to build additional iron furnaces.

Gadsden, Ala.—Iron Furnaces, Rod Mills, etc.—Southern Iron & Steel Co., reported incorporated in March with capital stock of \$17,000,000, has elected directors and officers, thus completing reorganization of Southern Steel Co. under plans announced last May. Officers are: President, W. H. Hassinger, Birmingham, Ala.; vice-president, W. W. Miller; secretary treasurer, A. R. Forsyth; chairman of executive committee, James T. Woodward; secretary of executive committee and assistant secretary-treasurer of company, D. G. Boissevain; each of New York. Underwood company will arrange for early operation of its various properties—iron furnaces, rod mills, coal and iron mines, etc., in Alabama, Georgia and Tennessee.

Rusk, Texas—Iron Furnace.—State Penitentiary Board, Frank B. Guinn, assistant financial agent, advises Manufacturers' Record that Rusk furnace will blow in probably in July or August; will also operate pipe plant to full capacity—50 tons daily; will probably not do any more foundry work except to make cast-iron pipe and fittings.

LUMBER-MANUFACTURING PLANTS

Asheville, N. C.—Murray Lumber Co. incorporated with \$2500 capital stock by G. A. Murray and others.

Beaumont, Texas.—Industrial Lumber Co. will increase capital stock from \$1,000,000 to \$1,100,000.

Blountstown, Ga.—Pennington & Evans of Barfield, Ga., will build sawmill at Blountstown.

Broadway, N. C.—Broadway Store Co. will rebuild plant for making lumber for boxes. (Lately reported burned.)

Broadway, N. C.—Thomas & Chandler have plans by L. P. Thomas, Broadway, for rebuilding of burned lumber plant; plant will have daily capacity of 20,000 shingles; will open proposals for machinery June 1. (See "Machinery Wanted.")

Cumberland, Md.—Blackburn Lumber Co. incorporated with \$30,000 capital stock by Howard Buchanan, Isaac Hirsch and Arthur Warfield; will develop several thousands of acres of timber land between Frostburg and Lonaconing, Md.

Elizabeth, La.—Buckley Lumber Co., Ltd., incorporated with \$100,000 capital stock; M. J. Itagley, president, Panola county, La.; D. M. Foster, vice-president, Lake Charles, La.; John H. Buchanan, Caddo parish, secretary, and treasurer.

Garvin, Okla.—Southern Cypress Shingle Co. incorporated with \$4000 capital stock by C. E. Cooley, H. R. Garrison, both of Garvin, and C. G. Woodward, Idabel, Okla.

Gladys, La.—W. C. Gray of Beaumont, Texas, has purchased 2800 acres of timber land near Gladys for \$40,000; he operates mill at Gladys.

Honaker, Va.—Long Pole Lumber Co. will rebuild on larger scale plant recently reported burned; loss \$35,000.

Jonesboro, Ark.—Michigan-Arkansas Lumber Co., Detroit, Mich., will establish lumber plant; purchased 43,000 acres timber land in Polkett county.

Little Rock, Ark.—Rieff & Son incorporated with \$25,000 capital stock by A. V. Rieff, H. F. Rieff and J. H. Carmichael.

Lockridge, Okla.—Lockridge Lumber Co. incorporated with \$3000 capital stock by P. Primm, L. W. Gray, both of Lockridge, and C. West, Mountain View, Okla.

Memphis, Tenn.—W. O. Harder Lumber Co. organized by W. O. Harder and others.

Memphis, Tenn.—W. G. McGowin Lumber Co. incorporated with \$10,000 capital stock; E. L. McGowin, president; B. S. McGowin, vice-president; W. G. McGowin, secretary and treasurer.

Milligan, Fla.—Scotch Manufacturing Co. will erect new mill.

Oklahoma City, Okla.—Darling Mill Co. incorporated with \$10,000 capital stock; Nelson Darling, president; E. Y. Matthews, superintendent; A. Hauck, secretary and treas-

urer; will erect two-story structure and equip for planing mill; while entirely separate corporation, will operate exclusively for Oklahoma Sash & Door Co.

Rayville, La.—Richland Lumber Co. (controlled by T. C. Mingle, Louisville, Ky.) will build hardwood mill and develop 13,000 acres timber lands; will at once begin construction of steel buildings on concrete foundations; will install machinery for large daily output; will also equip for electric lighting, construct railway from forest to mill, build workmen's houses, etc.; besides lumber will manufacture all kinds of boxes; will invest about \$200,000. (Reported contemplated in December.)

Stony Man, R. F. D. from Luray, Va.—C. J. Lucas will establish shingle and lath mill.

St. Louis, Mo.—North American Land & Lumber Co. Incorporated with \$100,000 capital stock by Edward Stringer, McNeill Stringer, Glenwood A. Hurd and others.

Waycross, Ga.—Hebard Cypress Co. of Scranton, Pa., awarded contract to David E. Evans & Co., 11 East Lexington St., Baltimore, Md., for construction of buildings for sawmills previously reported; reinforced concrete construction; company will develop timber in Okefenokee Swamp; John M. Hopkins, Grand Hotel, company's engineer at Waycross.

MINING

Addie, N. C.—Nickel, etc.—A. S. Davis will develop mineral deposits on 10,000 acres of land containing nickel, copper, tin cobalt, etc.

Ashland, Ala.—Graphite.—Ashland Graphite Co. Incorporated with \$20,000 capital stock by Irwin J. Griesemeyer, F. M. Pottenger and George Davidshiser.

Delight, Ark.—Kaolin.—B. M. Linville will probably develop kaolin and coal deposits near Delight.

Elliott, Ga.—Sunny South Mining & Real Estate Co. Incorporated with \$2,000,000 capital stock by Thomas B. Greer, Thomas F. Greer and others.

Granite, Okla.—Granite.—Ruggles Red Granite Co. Incorporated by W. S. Ruggles, Granite; S. A. Stephenson, Anadarko, Okla., and J. S. Brown, Chickasha, Okla.

Huntsville, Ala.—Rock.—Monte Sano Crushed Rock & Construction Co., recently noted, has not yet organized, but expects to do so soon; plans call for \$15,000 worth of machinery, including crushers, screens, air drills, compressors, cars, etc. Address Geo. K. Arnes, engineer in charge.

Joplin, Mo.—Lead and Zinc.—Prairie Chickens Mining Co. Incorporated with \$6000 capital stock by Howard Murphy, George Gist and Louise K. Murphy.

Miami, Okla.—Ottawa Mining & Development Co. Incorporated with \$100,000 capital stock by John P. McNaughton, Miami; Fred L. Williams and Fred H. Konochie, both of Kansas City, Mo.

New Market, Tenn.—Iron.—Grasselli Chemical Co., Cleveland, Ohio, has incorporated the Grasselli Chemical Co. of Tennessee, with capital stock of \$59,000, to develop ore property.

MISCELLANEOUS CONSTRUCTION WORK

Baltimore, Md.—Dredging.—Sanford & Brooks Co., 24 Commerce St., Baltimore, is lowest bidder at 9 9-10 cents per cubic yard for dredging Spring Gardens and Curtis Bay channels; \$43,000 available; proposals were opened by Major William E. Craighill, chief of local U. S. Engineer Department, Room 339 Custom-house, Baltimore, Md., and will be forwarded to Gen. W. L. Marshall, chief engineer U. S. Engineer Department, Washington, D. C., for approval. Contracts for widening channel off Quarantine for anchor age for deep-sea craft will be opened June 1. (Recently mentioned.)

Barstow, Texas—Drainage.—Barstow Drainage District awarded contract to Northwestern Drainage Co., Grand Rapids, Wis., for construction of drainage system; \$50,000 bonds voted; T. B. Anderson, J. J. Walker and C. E. Niclou, District Commissioners. (Recently mentioned.)

Beaumont, Texas—Canal.—Navigation Board (Mayor and City Council) and Jefferson County Commissioners decided to create navigation district and ordered election for voting on issuance of \$400,000 of bonds to deepen Sabine-Neches Canal.

Corning, Mo.—Drainage.—Western Clay Drainage District, D. Hopson, president, Corning, decided to construct two drainage canals. (See Doniphan, Mo.)

Doniphan, Mo.—Drainage.—Ripley County Commissioners are considering construction

of canal in Naylor Drainage District; directors of Western Clay Drainage District in Holt county, D. Hopson, Corning, Mo., president, decided to construct one main ditch along Indian Creek, which will empty into Little Black River, and another ditch commencing one-half mile south of Missouri State line and extending to intersection of Indian Creek, to be constructed so as to afford outlet for contemplated canal to be constructed by drainage district to be created in Ripley county.

Jacksonville, Fla.—Jetty Construction.—Blackstaff Engineering Co., Philadelphia, Pa., is lowest bidder at \$2.24 per ton of 2000 pounds for furnishing material and raising jetties at entrance to St. John's River; this will be provided for in appropriation of \$300,000 authorized by Congress for improvements to St. John's River from Jacksonville to the sea; Capt. George R. Spalding, Corps of Engineers, U. S. Army, Jacksonville, is local Government engineer. (Recently mentioned.)

Key West, Fla.—Dock.—Government has begun preliminary work on proposed concrete dock on Fort Taylor reservation; bids received some time ago were rejected, and work is to be undertaken by laborers employed by Quartermaster's Department; R. C. Hollyday, chief Bureau Yards and Docks, Navy Department, Washington, D. C.

Memphis, Tenn.—St. Louis & San Francisco Railroad, M. C. Byers, chief engineer, St. Louis, Mo., will construct lumber incline on river front at foot of Illinois River; floating cradle will be built and moored at foot of incline, on which empty cars can be run to be loaded with lumber from barges at all stages of river.

Memphis, Tenn.—Levee.—Bids will be opened June 21 for construction of 475,000 cubic yards of levee work in upper and lower St. Francis Levee districts; M. L. Walker, Major, Engineers. (See "Machinery Wanted.")

Morgan City, La.—Drainage.—Second Drainage District Commission is proceeding with proposed drainage of 5000 acres of land in vicinity of Harvey's Canal; canal, 30 feet wide and 6 feet deep, is now being dug, which it is expected to complete within two months; two pumps will be located at junction of this canal with Harvey's Canal; after this work is completed arrangements will be made for construction of protection levee in rear of district.

New Orleans, La.—Wharves.—Dock Board awarded contract to Massillon Bridge & Structural Co., Massillon, Ohio, for furnishing 2,507,080 pounds of steel and 4500 pounds of cast iron for use on Celeste, St. Andrew and Blinerville street sheds; total bid, \$68,554.99. A. C. Bell is engineer. Hugh McCloskey, president Board of Port Commissioners, 601-602 Hibernia Bank Bldg. (Recently mentioned.)

Parkersburg, W. Va.—Dam.—Hollerbach & May Contract Co., Evansville, Ind., has contract to construct portion of Dam No. 19 near Parkersburg; contract calls for 500 feet of navigable pass; construction to begin at once.

Port Arthur, Texas—Drainage.—City has petitioned Jefferson County Commissioners to order election for voting on \$150,000 bond issue for drainage; H. Falkenburg of Port Arthur appointed special engineer to secure estimate of cost.

St. Martinville, La.—Canal.—St. Martinville Progressive League is promoting construction of navigable canal from Bayou Portage to Bayou Teche, in St. Martin parish, which will reclaim about 50,000 acres of land and afford direct communication with Plaquemine Locks, about 30 miles distant; length of canal, nine and one-half miles; average depth for about six miles, 10 feet excavation; balance will gradually increase up to banks of Bayou Teche, where 30-foot excavation will be necessary; width not decided; no rock or gravel to be dug through; topography of county is level alluvial deposit; has not been determined whether work will be undertaken by board or by contract; Charles Gutekunst of St. Martinville is engineer in charge.

Washington, D. C.—Wharf, etc.—Bids will be opened June 12 for construction of wharf and bulkheads, including dredging, at District Wharf, 7th-street channel; Henry B. F. Macfarland and others, Commissioners. (See "Machinery Wanted.")

MISCELLANEOUS ENTERPRISES

Austin, Texas—Land Improvement.—Austin Land Co. Incorporated with \$10,000 capital stock by T. B. Cochran, E. P. Wilmet and D. B. Matthews.

Baltimore, Md.—Land Improvement.—Spring Garden Wharf & Land Co. Incorporated with \$125,000 capital stock by John C.

Rose, J. Frank Supplee, Jr. and C. John Beuvokes, all of Equitable Building.

Baltimore, Md.—Land Development.—Urban Development Co. Incorporated with \$30,000 capital stock by Herman Scherr, Israel Silberstein, both of Equitable Building, and Charles F. Stein, 229 East Lafayette Ave.

Baltimore, Md.—Cleaning.—Bruce Cleaning Co. Incorporated with \$6000 capital stock by James F. Bruce, Wm. H. Rook and Wm. E. Dibble, The Mt. Royal.

Baltimore, Md.—Insulation.—Frank A. Knowles & Co., 308 North Holliday St., Incorporated with \$15,000 capital stock by Frank A. Knowles, Wm. G. Thom, Jr., and Claus Bourbon; will continue to deal in material for insulating steam or hot-water pipes.

Baltimore, Md.—Heating, etc.—National Heating & Manufacturing Co. Incorporated with \$5000 capital stock by Edward F. Menke, 11 Morley St.; Edward Salmon, Jr., 222 South Stricker St., and John H. Lehman.

Baltimore, Md.—Engineering and Contracting.—Acme Engineering & Construction Co. Incorporated with \$5000 capital stock by Ralph Kunkel, 628 North Washington St.; J. F. Kunkel, 413 King St., and James A. Burton, 1509 West Lanvale St.

Baltimore, Md.—Bakers' Supplies.—Taft, Warren & Taft Company Incorporated by Edward J. Taft and B. Taft of Taft Bros., 920 Pennsylvania Ave., and John J. Warren.

Baltimore, Md.—Land Improvement.—Marlborough Estates Co. Incorporated with \$100,000 capital stock by L. G. Turner, 2633 St. Paul St.; Philip H. Hoffman, Equitable Bldg., and James W. Chapman, Jr., Calvert Bldg.

Baltimore, Md.—Land Development.—Mount Alto Company has purchased from Francis E. Yewell, 2845 North Calvert St., 13 acres of land near Walbrook and will develop; will subdivide, plat into building sites and make other improvements.

Baton Rouge, La.—Publishing.—Capital City Press Publishing Co. Incorporated with \$10,000 capital stock; J. E. Edmonds, president; Charles P. Manship, vice-president; E. M. Hearn, secretary and treasurer.

Birmingham, Ala.—Transfer.—Southern Transfer & Traffic Co. Incorporated by Eugene Wertheimer, Leonard Wertheimer and Joseph Copeland.

Charleston, W. Va.—Land Improvement.—Kanawha Realty Co. Incorporated with capital stock of \$5000; R. G. Linn, president; W. E. R. Byrne, vice-president; George Byrne, secretary and treasurer; offices in Kanawha Valley Bank Building.

Charlotte, N. C.—Shoes.—De Lane Shoe Co. Incorporated with \$25,000 capital stock by John L. De Lane, Mrs. Rebecca De Lane, both of Charlotte, and George Mahon, Lynchburg, Va.

Charlotte, N. C.—Plumbing and Heating.—Toomey Plumbing & Heating Co. Incorporated with \$8000 capital stock by T. C. Toomey, A. F. Baker and E. M. Baskerville.

Chattanooga, Tenn.—Grain Elevator.—Chattanooga Warehouse & Elevator Co. Incorporated by J. T. Thomasson and others to operate grain elevator, etc.; offices, 14-20 Boyce street. (See "Warehouses.")

Chattanooga, Tenn.—Fairs, etc.—Chattanooga Exposition Co. Incorporated with \$25,000 capital stock by Randolph M. Rose, 819 Chestnut St.; E. B. Ogden, H. M. Reed, C. T. Alexander and others to conduct agricultural fairs and horse races; exposition grounds probably in Alton Park (suburb); propose to expend \$100,000 for buildings, etc.

Clinton, Mo.—Transportation.—Western Power & Transportation Co. Incorporated by William F. Hall, R. H. Pierce and others.

Columbia, S. C.—Land Development.—Battery Development Co. Incorporated with \$60,000 capital stock by S. L. Simmons, W. R. Mayrant, J. A. Hertz and C. Bissell Jenkins.

Columbus, Ga.—Automobiles.—Georgia Automobile Exchange Incorporated with \$5000 capital stock by R. C. Jordan, Marshall Morton, J. W. Blackmon and George R. Spencer.

Cordell, Okla.—Publishing.—Beacon Publishing Co. Incorporated with \$5000 capital stock by R. A. Billups, John J. McCurley, R. B. McDonald and J. M. Amfield.

Dallas, Texas—Supplies.—Trinity Supply Co. Incorporated with capital stock of \$20,000 by P. H. Cannon, E. S. Newman and S. C. Taylor.

Dallas, Texas—Phonographs.—Dallas Talking Machine Co. Incorporated with capital stock of \$15,000 by Ira T. Moore, J. H. Corder and W. L. Williams.

Dallas, Texas—Fish and Animal Traps.—Star Fish & Animal Trap Co. Incorporated with \$3000 capital stock by J. M. Hendrix, W. S. Meyers, C. R. Bullock and others.

El Dorado, Ark.—Printing.—George W. Mason has awarded contract to J. R. Randolph, Ruston, La., for erection of printing plant; 27x70 feet; two stories; ordinary construction; stoves; electric lights; will install printing machinery; cost \$3500. (See "Machinery Wanted.")

El Reno, Okla.—Construction.—A. O. Kreipke Construction Co. Incorporated with \$25,000 capital stock by A. O. Kreipke, J. H. Hubbard and W. Treadwell.

Florida.—The Florida East Coast Company Incorporated with capital stock of \$20,000 by Harold G. Wilson, Philadelphia, Pa., and others.

Fort Worth, Texas—Grain Elevator.—Hood County Mill & Elevator Co. Incorporated with \$24,000 capital stock by Kirk D. Holland, H. P. Holland and James A. Walkup.

Fort Worth, Texas—Groceries.—A. E. Want & Co. Incorporated with \$150,000 capital stock by A. E. Want, S. E. Jackson and George R. Clayton.

Goldsboro, N. C.—Garage.—Goldsboro Garage & Motor Transportation Co., recently reported incorporated, awarded contract to J. E. Angle, Goldsboro, for erection of proposed garage; 34x100 feet; brick; ordinary construction; plans by H. W. Simpson, Newbern, N. C.

Haskell, Texas—Grain Elevator.—Sherrell Bros. & Co. will establish grain elevator.

Houston, Texas—Fruit Lands.—South Texas Fruit & Land Co. Incorporated with capital stock of \$4000 by R. C. Stanley, A. C. Swanson, F. F. Hatton and others.

Huntington, W. Va.—Glass Cutting and Decorating.—Albert E. Cox, Fred Scraggs, W. J. Smith and others will establish plant for cutting and decorating glass.

Kansas City, Mo.—Grain Elevator.—Douglas & Co., Cedar Rapids, Iowa, will establish grain elevator. (See "Miscellaneous Manufacturing Plants.")

Kansas City, Mo.—Paving Repair Plant.—Board of Public Works will receive bids until June 9 for construction of asphalt paving repair plant on workhouse grounds; steel frame; reinforced construction; capacity 1000 square yards asphalt topping daily; estimated cost, \$25,000; James L. Darnell, City Engineer.

Kirk, Texas—Townsitc.—C. F. Simmons, president Artesian Belt Railroad, San Antonio, Texas, will establish terminal town, connected with three railways, between Kirk and Macdona.

Knoxville, Tenn.—Amusement Park.—Knoxville Railway & Light Co., C. H. Harvey, president, awarded contract to J. D. Rogers, Mobile, Ala., to install roller coaster in Children's Park; cost \$10,000.

Louisville, Ky.—Land Improvement.—Ramsey Realty Co. Incorporated with \$10,000 capital stock by A. P. Ramsey, Louis G. Ramsey, Leo A. Ramsey and others.

Madisonville, Tenn.—Land Improvement.—Scruggs Realty Co. Incorporated with \$20,000 capital stock by A. B. Scruggs, J. F. Scruggs, D. F. Scruggs and others.

Mansfield, La.—Farm Lands Improvement.—De Soto Industrial Co. Incorporated with \$100,000 capital stock; J. L. Logan, president; will buy, improve and sell farm lands to immigrant settlers.

McAllen, Texas—Sugar Cultivation.—Colorado-Texas Sugar Co. Incorporated with capital stock of \$1,000,000 by W. A. Boswell and C. O. Leonard of Austin, Texas; T. H. Devine of Pueblo, Col.; Herbert Harris of Denver, Col., and J. H. Green of Springfield, Ill.; will grow sugar cane.

Memphis, Tenn.—Hardware.—De Soto Hardware Co. Incorporated with \$30,000 capital stock by Frederick Orgill, W. L. Moody, Frederick Orgill, Jr., and others.

Memphis, Tenn.—Shoe.—Cash Shoe Store Incorporated with \$10,000 capital stock by W. N. Lipscomb, L. G. Lipscomb, W. E. Rowsey and others.

Muskogee, Okla.—Townsitc.—Muskogee Townsite Co. Incorporated with \$10,000 capital stock by R. N. Eggleton, R. Harlan and others.

Montgomery, Ala.—Incinerator.—City will establish plant for burning garbage. Address The Mayor.

New Iberia, La.—Automobiles.—Teche Automobile Co. Incorporated with \$10,000 capital stock by J. W. K. Shaw, George W. Dallas, Preston King and others.

New Orleans, La.—Coal.—New Orleans Coal Co. Incorporated with \$50,000 capital stock; G. B. McCormack, president; H. E. McCormack, vice-president; Robert P. Hyams, secretary and treasurer; will deal in coal and coke.

North Birmingham, Ala.—Machinery and Supplies.—Southern Equipment Co. organized to deal in machinery and supplies of all

kinds; W. J. Axford, manager; offices at 3521 27th street. (See "Machinery Wanted.")

North Fork, W. Va.—Mercantile.—Hale & Austin Incorporation incorporated with \$5000 capital stock by C. W. Hale, L. C. Austin, North Fork; H. B. Reynolds, Keystone, W. Va. and others.

Norfolk, Va.—Land Improvement.—Bay Shore Park Corporation incorporated with \$25,000 capital stock; W. G. Davis, president; M. D. White, vice-president; H. T. Hedrick, secretary and treasurer.

Norfolk, Va.—Contracting.—Public Works Construction Co. incorporated with \$25,000 capital stock; J. T. McMahon, president; H. L. Key, secretary and treasurer.

Oklahoma City, Okla.—Steam Laundry.—White Swan Laundry Co. incorporated with \$25,000 capital stock by A. A. Meyers, Flora Meyers and others.

Oklahoma City, Okla.—Land Improvement.—Oklahoma Industrial Co. incorporated with capital stock of \$400,000 by Sidney L. Block, A. H. Classen, C. F. Colord and associates.

Oklahoma City, Okla.—Townsite.—Osage Townsite Co. incorporated by J. Walls, John Du Mars and David N. Taylor.

Pensacola, Fla.—Amusement Park.—Palmetto Beach Amusement Co. incorporated with \$10,000 capital stock; J. D. Carroll, president; F. M. Blount, vice-president; John Choate, secretary and treasurer.

Plainview, Texas—Hardware.—R. C. Ware Hardware Co. incorporated with \$41,000 capital stock by R. C. Ware, C. M. Donohoo, R. W. Braham and Lee Shropshire.

Richmond, Va.—Automobiles.—Hicks Automobile Co. incorporated with \$15,000 capital stock; Thomas B. Hicks, Sr., president; M. Hicks, secretary and treasurer.

Rome, Ga.—Land Improvement.—Howell Land Co. incorporated with \$5000 capital stock by W. M. Hardy, B. C. Yancey, A. D. Hull and others.

Salisbury, N. C.—Laundry.—Salisbury Laundry Co. incorporated with \$10,000 capital stock by F. D. Lethee, Charles R. Price and A. D. Lindy, all of Charlotte, N. C.

Sevierville, Tenn.—Publishing.—Sevier County Printing & Publishing Co. incorporated by E. F. Godard, W. L. Duggen, G. L. Zirkle, A. Bowers and others.

St. Louis, Mo.—Automobiles.—Times Square Automobile Co. incorporated with \$5000 capital stock by Denmark Donnelly, Maurice Schoenthal and others.

St. Louis, Mo.—Contracting.—Scott-Emith-White Contracting Co. incorporated with \$200,000 capital stock; C. D. Smith, Memphis, Tenn., president; E. J. Scott, general manager, St. Louis; John R. Scott, Memphis, Tenn., secretary; E. H. Dameron, New Orleans, La., general superintendent; E. P. White, New Orleans, La., treasurer; is consolidation of John Scott & Sons, St. Louis; C. D. Smith & Co., Memphis, Tenn., and Dameron & White, New Orleans, La.

St. Louis, Mo.—Laundry, Cleaning and Dyeing.—Criterion Laundry Co. incorporated with \$25,000 capital stock by B. Riley Hawk, N. S. Ruston, F. A. Morrow and others.

St. Louis, Mo.—Construction.—Gerner-Dumont Realty & Construction Co. incorporated with \$10,000 capital stock by John A. Gerner, Thomas B. Dumont and Howard Sidener.

St. Louis, Mo.—Land Improvement and Publishing.—Illinois Missouri Development & Publishing Co. incorporated with \$100,000 capital stock by H. P. Belt, W. H. Belt, C. A. Cale and others.

Taft, Texas—Steam Laundry.—Charles P. Taft will build proposed laundry after plans by Alfred Giles of San Antonio; later will purchase the laundry machinery.

Tulsa, Okla.—Automobiles.—Oklahoma Auto Co. incorporated with \$10,000 capital stock by George H. Johnson, D. Vensel, O. M. Lancaster and J. T. Forrester.

Vernon, Texas—Land Development.—Vernon Land, Improvement & Brick Co. incorporated with \$10,000 capital stock by O. D. Pennington and others.

Washington, D. C.—Easley & Hill, Jordan Bldg., representing Lynchburg capitalists, are preparing to develop four tracts of land in northwest suburbs; contract for development of one tract near Saul's Addition awarded to George B. Mullins, 612 F St. N. W., Washington, and includes grading, laying out streets and avenues, construction of sidewalks; other tracts will be subdivided and developed; total cost of improvements \$1,000,000; development to be known as Jefferson Park.

Winston-Salem, N. C.—Publishing.—Sentinel Publishing Co. will erect newspaper plant; two stories; mill construction; plans by J. G. Zimmerman, Winston-Salem.

Winston-Salem, N. C.—Automobiles.—Winston Automobile Co. incorporated with \$25,000 capital stock by J. M. Hamlin, H. C. Sheets and others.

Woodward, Okla.—Steam Laundry.—The Laundry Co. incorporated with \$8000 capital stock by Henry D. Kuhn, B. E. Merrill and M. E. Merrill.

MISCELLANEOUS MANUFACTURING PLANTS

Abbeville, La.—Rice Mills.—United Irrigation & Rice Milling Co. awarded contract to F. H. Schule Company, New York, for overhauling mills at Abbeville, Crowley and Gueydan, La.; contract includes 12 large-size separators, 6 extra large pearlizing cones, 3 large polishing cones and necessary accessories.

Akron, Ala.—Fertilizer.—Akron Mill & Fertilizer Co. incorporated with \$12,000 capital stock by T. W. Coleman and others.

Ardmore, Okla.—Bottling.—Crown Bottling & Manufacturing Co. incorporated with \$15,000 capital stock by Ed Byrd, Morgan Hayes and J. W. Harrold.

Asheville, N. C.—Drugs.—Asheville Wholesale Drug Co., previously reported incorporated, will erect factory and warehouse building.

Baltimore, Md.—Vanadium Ores and Metals.—Vanadium Company of America incorporated with \$50,000 capital stock by William F. Dee, 2102 Walbrook Ave., Baltimore; John Burlinson, New York; Clark McColley, Greensburg, Pa., and S. H. Wright, Washington, D. C.; to manufacture vanadium and vanadiferous ores and metals.

Baltimore, Md.—Shirts and Underwear.—Erianger Bros., 527 W. Pratt St., awarded contract to Morrow Bros., 218 W. Saratoga St., Baltimore, for erection of addition to plant at Pratt and Greene streets; four stories; brick; stone trimmings; 56x115 feet; two electric elevators; heavy mill construction; cost \$25,000.

Baltimore, Md.—Candy.—Lipps-Murbach Company, Hollins St. and Calverton Rd., awarded contract to J. Elmer Stansbury, 109 Clay St., Baltimore, for erection of two additional stories to present plant; after improvements are made structure will have total floor space of 60,516 square feet; all mechanical work, elevators, heating plant, electric work and plumbing will be carried out as in original building; cost \$25,000.

Baltimore, Md.—Paper and Pulp.—Jacob Ormerod, 1504 Prairie Ave., Houston, Texas, and associates are organizing two companies to manufacture paper pulp from rice straw; first plant to be located at Beaumont; each will have daily capacity of 25 tons; may also manufacture paper. (Lately mentioned. See "Machinery Wanted.")

Bessemer, Ala.—Roofing.—Turnerized Metal & Canvas Roofing Co. will double capacity of plant; J. O. Hoover, manager.

Birmingham, Ala.—Paper Boxes.—Marx Paper Box Manufacturing Co. recently incorporated with \$10,000 capital stock, will erect plant with 8000 paper boxes daily capacity; Morris Marx, president.

Brewton, Ala.—Tobacco Cultivation.—Escambia Tobacco Co. incorporated with \$30,000 capital stock by E. M. Lovelace, S. S. Foshee, J. T. Boyd and others.

Bristol, Va.—Gas.—Bristol Gas & Electric Co. will install 1500-horse-power steam turbine and additional gasholder.

Brownwood, Texas—Gas Plant.—George W. Stone & Co., Cleveland, Ohio, applied for franchise to establish gas plant.

Clifton Forge, Va.—Door Springs.—Coffman Door Spring Co. organized with F. W. Kling president and E. S. Coffman general manager; will establish plant for manufacturing patented door spring invented by Mr. Coffman; capacity, 500 springs daily.

Covington, Va.—Paper and Pulp.—West Virginia Pulp & Paper Co. will erect addition and install additional machinery; J. R. Porkey will superintend construction.

Dallas, Texas—Films.—J. D. Whelan Film Co. has increased capital stock from \$50,000 to \$100,000.

Dallas, Texas—Paper.—Southwestern Paper Co., Dallas, F. O. Butler, president, Chicago, Ill., has purchased site and will erect paper factory; cost \$100,000; 22,000 square feet floor space.

Denison, Texas—Soap.—The Soap Manufacturing Co. of Holly Springs, Miss., will establish plant at 116 South Austin avenue, for manufacturing laundry soap.

Donaldsonville, Ga.—Guano.—Donaldsonville Oil Co. awarded contract to Buckeye Brass & Iron Works, Dayton, Ohio, for erection of guano factory and oil mill.

Fort Worth, Texas—Mattresses and Comforts.—Fort Worth Mattress & Comfort Co. has increased capital stock from \$25,000 to \$30,000.

Gainesville, Texas—Bakery.—City Bakery, Winters & Slama, proprietors, will install steam and electrical outfit to treble output.

Greensboro, Ga.—Fertilizer.—Greensboro Fertilizer Co. incorporated with \$20,000 capital stock by R. L. McCommons, J. T. Boswell, J. B. Williams and others. (Mentioned in April.)

Harlingen, Texas—Sugar Mill.—Rolla Wells, August Gehner, both of St. Louis, Mo., and others are reported interested in establishment of sugar mill at Harlingen.

Hot Springs, Ark.—Cigars.—Blumenstell & Wolf Cigar Co. incorporated with \$5000 capital stock by S. Blumenstell, John C. Wolf and George Wolfsky.

Kansas City, Mo.—Starch.—Douglas & Co., Cedar Rapids, Iowa, will establish starch factory; capacity 6000 bushels corn daily; main building will be 20x101 feet; four stories; secondary building 164x57 feet; four stories; power-house 70x92 feet; two stories; will erect grain elevator in addition.

Lonsdale, Station R, Knoxville, Tenn.—Baskets.—Knoxville Basket Co., noted in April as planning to rebuild burned plant, is considering purchase of Hammock Steel Range Co.'s plant.

Lux, Miss.—Brooms.—H. Huffman will establish broom factory.

Memphis, Tenn.—Candy.—Royal Candy & Manufacturing Co. incorporated with \$50,000 capital stock by D. H. White, R. P. Woodson and others.

McDonough, Ga.—Electric Feeding Mechanism.—A. W. Sherwood, R. F. D. No. 4, contemplates manufacturing his invention—electric feeding mechanism for farmers; will use sheet metal, electric wire, batteries, door openers, time switches, etc. (See "Machinery Wanted.")

Memphis, Tenn.—Drugs.—William A. Webster Company incorporated with \$50,000 capital stock by J. L. Andrews, W. A. Webster, Richmond McKinney and others.

Memphis, Tenn.—Bags.—Memphis Bag Co. will erect plant to replace present structure; new building will be five stories; mill construction, and equipped for manufacturing cotton and burlap bags; capacity to double present plant; cost \$50,000.

Mineral Wells, Texas—Lime, etc.—Mineral Wells Crushed Stone & Lime Co. incorporated with E. B. Ritchie, president; C. E. Read, vice-president; W. I. Smith, secretary and treasurer; A. A. Goodwin, general manager; will establish crushing plant with capacity of 300 tons daily.

Morrison, Tenn.—Medicine.—Brown Stock Medicine Co. will increase and improve plant.

Norfolk, Va.—W. W. Old will rebuild structure occupied by Norfolk-Virginia Peanut Co. for factory reported burned.

Oklahoma City, Okla.—Oklahoma Gas & Electric Co. will construct 40 miles of additional gas mains in connection with improvements of plant. (See "Electric-light and Power Plants.")

Owensboro, Ky.—Brewing.—H. C. Shaner, Monterey, Mexico, has contract for erection of brewery and ice plant at Owensboro.

Plainview, Texas—Woven-wire Fences.—Plainview Woven-wire Fence Co. organized with \$25,000 capital stock; A. E. Harp, president; E. M. Humphreys, vice-president; W. Bain, secretary; J. H. Slaton, treasurer.

Reidsville, N. C.—Tobacco Ordering Plant.—W. R. Saunders, Lawsonville, R. F. D. of Reidsville, contemplates establishment of tobacco storage warehouse and steam ordering plant.

Roe, Ark.—Rice Mill.—W. V. Powell can probably give information regarding establishment of rice mill.

Rome, Ga.—Scales.—Rome Scale & Manufacturing Co., previously noted incorporated, will expend about \$30,000 for erection of buildings and machinery; main building, 50x200 feet; frame; will also erect foundry building.

Shreveport, La.—Oil Refinery.—Texas Company, main office, Houston, Texas, will, it is reported, establish oil refinery at Shreveport.

Siloam Springs, Ark.—Vinegar.—O. L. Gregory Vinegar Co. incorporated with \$200,000 capital stock by O. L. Gregory, F. A. Davey and R. S. Morris.

St. Louis, Mo.—Medicine.—One-Minute Remedy Co. incorporated with \$50,000 capital stock by James H. Ricker, Forest Gordon and R. H. Bailey.

Temple, Texas—Creamery.—Tyler Creamery Co. is name of proposed company; has organized with S. H. Cox, president; F. W. Mad-

den, vice-president, and James P. Broughton, secretary-treasurer; capital stock \$5000.

Temple, Texas—Brooms.—W. H. Hill is planning to increase capacity of broom plant.

Tyler, Texas—Creamery.—Company organized with \$5000 capital stock to establish creamery in Tyler; E. E. Jordan, College Station, Texas, will be general superintendent.

Washington, D. C.—Clothing.—Capital Clothing Co. incorporated with \$50,000 capital stock; G. L. Baker, president, 1932 Biltmore St. N. W.; R. S. Bowie, vice-president, The Sheridan; H. H. O'Bear, secretary and treasurer, Colorado Bldg.

Wheatley, Ark.—Rice Mill.—Wheatley Rice Mill & Power Co. awarded contract to Ilgen & Lesh, Memphis, Tenn., for erection of warehouse, power, mill and boiler-houses and office building; frame, brick and stone; concrete foundations; will mill rice for market and furnish motive power to farmers within radius of five miles of Wheatley for pumping water into irrigation ditches; cost \$60,000.

Wytheville, Va.—Papier Mache Initials, etc.—The Initial Company incorporated with \$15,000 capital stock to manufacture papier mache initials and embroidery forms; Roy W. Sexton, president; Will S. Trinkle, vice-president; C. M. Trinkle, secretary-treasurer. (See "Machinery Wanted.")

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Canadian, Texas—Gulf, Colorado & Santa Fe Railway, C. F. W. Felt, chief engineer, Galveston, Texas, will rebuild roundhouse reported burned.

Huntington, W. Va.—Chesapeake & Ohio Railway, F. I. Clegg, engineer maintenance of way, Richmond, Va., reported as considering improvements to shops and equipment at Huntington, including extension of machine shop and installation of additional machinery, extension of car-repairing department, etc.; expenditure \$300,000.

Macon, Ga.—Georgia Southern & Florida Railway, W. C. Shaw, Jr., of Macon, chief engineer, plans to erect addition to shops; Hall Parker Contracting Co. of Macon has begun grading of site.

Memphis, Texas—Altus, Roswell & El Paso Railway, Edward Kennedy, Altus, Okla., president, has, it is reported, secured 200 acres of land at Memphis as site for yards, roundhouse, shops, etc.; two bridges will be built in connection, one across South Fork River and another across Stump Creek; 2000 feet of former have been completed.

Mobile, Ala.—South Mobile Terminal Co. has reorganized with \$100,000 capital stock; it is stated company proposed development of strip of land near Alabama Port; Home Dredging Co. of Mobile has contract to dredge channel four miles long to lower anchorage, same to be 14 feet deep throughout and with loading basin 200x400 feet; \$15,000 has been appropriated. James T. Jett is president, and F. Morton, secretary-treasurer, Mobile & Ohio Railroad; C. F. Blue, superintendent of way and structures. Mobile is reported to build terminals on property.

Taylor, Texas—International & Great Northern Railroad, Thomas J. Freeman, general manager, Houston, Texas, has, it is reported, abandoned original plans for shops at Taylor previously mentioned and is having new plans prepared for building shop to accommodate all car-repairing and building work between Palestine and Laredo.

Tyler, Texas—St. Louis Southwestern Railway, M. L. Lynch of Tyler, chief engineer, is having plans prepared, it is reported, for enlargement and improvement of machine shops; new machinery to be installed; expenditure \$150,000.

ROAD AND STREET IMPROVEMENTS

Abingdon, Va.—City awarded contract to Miller & Co., Lynchburg, Va., at \$24,774.50 for macadamizing streets and roads adjacent to city.

Bainbridge, Ga.—City will vote June 8 on issuance of \$50,000 of bonds for street paving. Address The Mayor.

Baltimore, Md.—Walter W. Crosby, chief engineer State Roads Commission, 503 Union Trust Bldg., Baltimore, has been instructed to prepare plans and specifications for road in Cecil county from Rising Sun to Calvert; distance between three and four miles.

Beaumont, Texas—City will construct 20,000 square yards street paving, vitrified brick on asphalt paving, and concrete curbing as specified; bids to be opened June 1; J. G. Sutton, City Secretary; C. L. Scherer, City Engineer. (See "Machinery Wanted.")

Bedford City, Va.—Bids will be opened June 1 for construction of two and one-half miles of macadam road in Bedford county; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Bessemer, Ala.—City awarded contract to P. H. O'Brien & Co. of Bessemer for paving 16,000 square yards with vitrified brick at \$1.64 per square yard; total cost about \$27,000.

Bessemer, Ala.—City awarded contract to P. H. O'Brien of Bessemer for grading, clearing, etc., of 18th street at total cost of \$5000.

Bethesda, Md.—Bethesda District voted \$25,000 bond issue for road improvements; will construct six miles of road at estimated cost of \$50,000, one of which will be furnished by State. Address Montgomery County Commissioners, Rockville, Md. (Recently mentioned.)

Blacksburg, Va.—Bids will be opened June 5 for construction of one and one-half miles of macadam road; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Brunwell, W. Va.—City awarded contract to Wingate & McGhee (probably of Bramwell) for paving and curbing two principal streets at \$2.00 per yard for paving and 74 cents per foot for concrete curbing; roadway to be 25 feet wide. (Recently noted.)

Bradenton, Fla.—Manatee county will vote June 22 on issuance of \$250,000 of bonds for constructing paved, macadamized or other hard-surfaced roads. M. C. Davis, chairman Board of County Commissioners.

Bradenton, Fla.—City will pave streets; bids to be opened June 25; A. J. Beck, secretary Board Trustees. (See "Machinery Wanted.")

Charlottesville, Va.—Albemarle County Commissioners considering construction of roadway over mountain; P. St. J. Wilson, State Highway Commissioner, Richmond, Va.

Cleburne, Texas.—Johnson county is considering \$150,000 bond issue for road improvements in First District. Address County Commissioners.

Danville, Ky.—City Council passed ordinance providing for laying of 10 miles of concrete paving and curbing during summer. Address The Mayor.

Denton, Texas.—Justice Precinct No. 1 will vote on issuance of \$300,000 of bonds for road improvements. Address County Commissioners.

Dothan, Ala.—City has engaged J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., to design and supervise street paving, for which bond issue was recently reported voted; H. W. Lisenby, Clerk. (See "Water-works.")

Emporia, Va.—Greeneville county voted issuance of \$80,000 of bonds for road improvements. Address County Commissioners.

Farmville, Va.—City will lay 4500 square yards granolithic sidewalks and 1200 square yards cobblestone paving; bids to be opened May 29; estimated expenditure, \$8500. John R. Martin, chairman street committee, is in charge. (Recently mentioned.) See "Machinery Wanted."

Fulton, Mo.—City will lay 7600 square yards macadam paving and 4600 feet granite curb and gutter, including 4000 cubic yards excavation; P. D. Thurmond, City Engineer. (See "Machinery Wanted.")

Gainesville, Texas.—Cooke county will vote June 26 on issuance of \$100,000 of bonds for road improvements. Address County Commissioners.

Granbury, Texas.—Hood County will vote June 26 on issuance of \$80,000 of bonds for road improvements. Address County Commissioners.

Goldsboro, N. C.—City will vote June 14 on issuance of \$150,000 of bonds for street and sidewalk improvements. Address The Mayor.

Havre de Grace, Md.—Street Improvement Commission accepted plans and specifications by Walter W. Crosby, chief engineer State Roads Commission, 503 Union Trust Bldg., Baltimore, Md., for street improvements estimated to cost \$22,000; bids will be received until June 15.

Houston, Texas.—Contract will soon be awarded for four miles of street grading, one mile of street paving, one mile of cement sidewalk and clearing for same, amounting to about 30 acres. Address L. Bryan & Co., 317½ Main St.

Jackson, Tenn.—Campbell county authorized to issue \$150,000 of bonds for road construction. Address County Commissioners.

Kenova, W. Va.—City will vote on issuance of \$40,000 of bonds for street paving; W. B. Morris, Mayor. (Recently mentioned.)

Little Rock, Ark.—City awarded contract to Memphis Asphalt & Paving Co., Memphis, Tenn., at \$1.36 per square yard, for resurfacing of West Markham street with asphalt.

Longview, Texas.—City will vote on issuance of \$40,000 bonds for street improvements. Address The Mayor.

Marked Tree, Ark.—City will lay concrete sidewalks. Address The Mayor.

McMinnville, Tenn.—Warren county will receive bids until June 3 for construction of from 20 to 65 miles of macadam and gravel roads; \$150,000 of bonds have been issued. (Recently mentioned.) See "Machinery Wanted."

Memphis, Tenn.—City will pave Beale avenue with Moran concrete pavement; bids to be opened May 28. James H. Malone, Mayor. (See "Machinery Wanted.")

Memphis, Tenn.—Bids will be opened May 28 for mining, hauling and spreading gravel on various streets and roads, including Easley, Raines and Hill avenues, etc.; D. P. Prescott, secretary Turnpike Board; M. W. Fletcher, clerk. (See "Machinery Wanted.")

New Orleans, La.—City will pave Erato street according to plans and specifications to be prepared by W. J. Hardee, City Engineer. George Ferrier, Jr., clerk of Council.

Norfolk, Va.—Seventh Ward Local Board will petition City Council for authority to issue \$60,000 of bonds for street improvements and to perfect ward's sewerage system. W. T. Brooke, City Engineer.

Richmond, Va.—Bids will be opened June 1 for construction of macadamized roads as follows: Five miles in Wythe county, near Wytheville; six and one-quarter miles in Tazewell, and four miles in Wise county. P. St. J. Wilson, State Highway Commissioner, Richmond. (See "Machinery Wanted.")

Richmond, Va.—Christian Construction Co., Durham, N. C., has contract to pave Broad street.

San Saba, Texas.—San Saba county will vote June 12 on issuance of \$72,000 of bonds for road improvements. Address County Commissioners.

Savannah, Ga.—City awarded contract to Barber Asphalt Paving Co., Philadelphia, Pa., at \$1.15 per cubic yard, for 100,000 cubic yards of paving, with privilege of ordering 50,000 more yards at same price.

Scottsville, Ky.—City will grade and macadamize streets and public square and construct certain bridges; bids to be opened May 29; John D. Spears, Mayor. (See "Machinery Wanted.")

Selma, Ala.—City will pave 10,000 square yards on Washington and Alabama streets with brick, asphalt and granitoid on five-inch concrete foundation; also necessary granite curbing, guttering, etc.; bids will be opened June 4. Julian Smith, City Engineer. (See "Machinery Wanted.")

St. Charles, Mo.—Beardstown Construction Co., Beardstown, Ill., has contract at \$665 for 38,768 square feet sidewalks, etc., at St. Charles. Carr Edwards, City Engineer.

St. Louis, Mo.—Board of Public Improvements approved ordinances calling for expenditure of \$408,340 for street paving; streets include Jefferson avenue, at cost of \$76,683, and Gravois avenue, at cost of \$62,603.

Tampa, Fla.—City defeated issuance of \$480,000 of bonds for public improvements, to be divided as follows: For steel bridge, abutments, etc., Lafayette street, according to plans and specifications furnished by Mr. Hildreth, \$170,000; to complete paving now under way, \$82,500; paving in annexed territory, \$50,000; paving in old city limits, \$22,500; sewers in new territory, \$40,000; sewer in old city limits, \$10,000; municipal hospital, \$30,000; city hall, \$75,000. Address The Mayor.

Tampa, Fla.—Hillsboro County Commissioners awarded following contracts for extending paving of Grand Central avenue to Fraziers Beach: W. A. Cook for three-quarters of mile of vitrified-brick paving at \$1.27 per square yard and for curbing at 43 cents per linear foot; B. Whitehurst at 37 cents per square yard for two and one-quarter miles shell road; total of 7920 feet of granite curbing; both contractors of Tampa. (Recently mentioned.)

Temple, Texas.—City will receive bids at office of City Secretary until June 15 for vitrified-brick street paving, for which \$50,000 bond issue is available; proposals to be opened and contract awarded June 25; City Engineer Smith has prepared specifications. (Recently noted.)

Thomas, W. Va.—City will pave East avenue, macadamize Spruce street, etc.; \$20,000 of bonds issued. George Martin, Mayor.

Towson, Md.—P. Reddington & Sons, 321 St. Paul St., Baltimore, are lowest bidders for paving First avenue, Canton, with granite blocks; paving, with bituminous filler,

\$39,985.20, and with combination filler, \$38,425.20; Malone Bros., Mount Washington, Md., are only bidders at \$1.50 per ton for furnishing crushed trap stone for improving old Court road in Second District. (Recently mentioned.)

Towson, Md.—Bids will be opened June 3 for improving eight miles of Park Heights avenue between Baltimore and Worthington Valley; E. Stanton Bosley, secretary Board of Baltimore Highways Commissioners. (See "Machinery Wanted.")

Tulsa, Okla.—City will improve streets in Improvements Districts 18 to 26, inclusive; bids to be received until May 31; E. B. Cline, City Auditor. (See "Machinery Wanted.")

Washington, D. C.—Commissioners District of Columbia (Henry B. F. Macfarland, Henry L. West and William V. Judson), Washington, approved recommendations of engineer department that W and U streets S. E. be improved by setting bluestone curb on both sides, relaying cobble gutters and regulating surface of roadways with gravel at estimated cost of \$100 each.

Wheeling, W. Va.—Ohio County Commissioners awarded contract to Rosser & Malone, Bellaire, Ohio, at \$1 per yard for paving river road from Loveland to Glenn's Run with suburban block; Stringer & Stringer of Wheeling have contract for furnishing sandstone curbing at 28 cents per linear foot. (Recently mentioned.)

Wichita Falls, Texas.—City voted \$20,000 bond issue for street paving. Address The Mayor. (Recently mentioned.)

SEWER CONSTRUCTION

Arlington, Texas.—J. W. Maxcy Company, 906 Scanian Bldg., Houston, Texas, lately mentioned as having contract for engineering and construction of sewer system at Arlington, has begun construction and expects to complete by July 1; cost of system, including broad irrigation disposal field, is \$25,000.

Baltimore, Md.—Board of Awards awarded contract to William M. McCarthy Company, Pittsburgh, Pa., at \$82,800 for construction of storm-water drains, contract No. 7; Calvin W. Hendrick, chief engineer Sewerage Commission, 904 American Bldg. (Further facts recently noted.)

Capitol Hill, Okla.—Board of trustees accepted plans and specifications for sewer system to cost \$15,000; bids will soon be invited. (Recently mentioned.)

Commerce, Ga.—City has contracted with J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., for construction of sewer system lately mentioned; will vote June 8 on issuance of \$8000 additional bonds for complete sewer system.

Canyon, Texas.—City will vote on issuance of \$33,000 bonds to construct sewer and water systems. Address The Mayor.

Cuero, Texas.—City Council appointed committee, F. W. Bates, chairman, to prepare map showing levels, etc., and to ascertain cost of sewer system previously mentioned.

Dothan, Ala.—City has engaged J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., to design and supervise construction of sewer system, for which \$20,000 bond issue was recently reported voted; H. W. Lisenby, Clerk. (See "Water-works.")

Elizabethton, Tenn.—City will invite bids about July 1 for sewer construction; cost estimated at \$33,500. Address The Mayor. (Recently mentioned.)

Ensley, Ala.—City voted issuance of \$65,000 of bonds to complete sewer system. Address The Mayor. (Recently mentioned.)

Hartshorne, Okla.—City will open bids June 7 for purchase of sewer pipe and fittings for sewer system in residence section, and appointed committee, consisting of E. B. Coopwood, A. A. Storey and George Baker, to be in charge.

Louisville, Ky.—City will open bids June 4 for construction of section "B" of northeastern sanitary trunk sewer, contract No. 41 of comprehensive system of sewerage. W. C. Nones, chairman Commissioners Sewerage, Equitable Bldg. (See "Machinery Wanted.")

Louisville, Ky.—City awarded contract to Blackstaff Engineering Co., Philadelphia, Pa., at about \$150,000, to construct Northeastern trunk sewer, and to E. A. Barker & Son of Louisville for Magazine-street sewer. W. C. Nones, chairman Commissioners Sewerage, Equitable Bldg. (Recently mentioned.)

Madison, Fla.—City will vote July 6 on issuance of \$15,000 of bonds for sewer construction. Address The Mayor.

Miami, Okla.—Will F. Plummer Company, Springfield, Ohio, has contract for construction of proposed system of sanitary sewers.

Newberry, S. C.—City voted issuance of \$40,000 of bonds for extension of sewer and water systems. Address The Mayor.

Norfolk, Va.—Seventh Ward Local Board will petition City Council for authority to issue \$60,000 of bonds to perfect ward's sewerage system and for street improvements. W. T. Brooke, City Engineer.

Norfolk, Va.—Board of Control awarded contract to F. J. McGuire, Greenville, N. C., for construction of 1200 feet of five-foot and 500 feet of four-foot concrete drains, to be used in connection with drainage of Newton's Creek, extending from Queen and Clay streets to county line; \$19,000 available. (Recently mentioned.)

Ponca, Okla.—Stucky & Co., Perry, Okla., have, it is reported, contract at \$735 to construct lateral sewers in District No. 6.

Savannah, Ga.—City is considering election for voting on \$300,000 bond issue for extension of house drainage system. John W. Howard, City Engineer.

Spartanburg, S. C.—P. J. O. Smith has contract to construct sewers on Wofford College campus and Hall street at cost of \$4000.

Texarkana, Texas.—Cities of Texarkana, Texas, and Texarkana, Ark., will build septic tank jointly for destruction of sewer wastes of both cities; estimated cost \$5000. M. R. DeLoach is Mayor of first-named city and E. H. Trigg of second.

Van Buren, Ark.—City will install pumping station at mouth of sewer; in case of flood sewage will be pumped out of sewers and forced into Arkansas river. Address The Mayor.

Washington, D. C.—Commissioners District of Columbia (Henry B. F. Macfarland, Henry L. West and William V. Judson), Washington, approved recommendations of engineer department for following improvements: Sewer in T street and Wisconsin avenue; Luzon avenue, trunk sewer from Military road to grounds of Walter Reed Army General Hospital at cost of \$11,800; catch-basin at 5th and S streets N. W. and at 5th and S streets N. E.

TELEPHONE SYSTEMS

Bardstown, Ark.—Bardstown Telephone Co. Incorporated; J. M. Ward, president and treasurer; L. L. Ward, vice-president; H. S. Portis, secretary.

Ellerore, S. C.—Company organized with E. F. Frick, president and manager; W. F. Stack, vice-president; Joseph S. Weeks, secretary; W. M. Fair, treasurer.

Jackson, Miss.—Mississippi Home Telephone Co. Incorporated with \$250,000 capital stock by C. M. Williamson, N. D. Smith, both of Jackson; J. O. Spots, Meridian, Miss., and others.

Jennings, Fla.—Southern Bell Telephone & Telegraph Co., main office Atlanta, Ga., contemplating establishment of telephone system at Jennings.

Jenkintown, Ga.—Jenkintown Telephone Co. Incorporated with \$200,000 capital stock by B. F. Alken, J. F. Tingle and others.

Katy, Texas.—Katy Telephone Co. organized by L. W. Clardy, W. H. Weller, G. W. Douglas and others; 33-phone system; switchboard and apparatus ordered.

Magruder, Va.—Bruton Telephone Co. Incorporated with \$3000 capital stock; W. L. Schenck, president, Oak Tree, Va.; D. A. Powers, vice-president, Magruder; D. S. Harris, secretary and treasurer, Williamsburg, Va.

Nashville, Tenn.—Alabama & Tennessee Telephone & Telegraph Co. is reported to take over independent telephone lines in Tennessee and Alabama, including main line from Birmingham, Ala., to some point in Kentucky.

Nettleton, Ark.—St. Louis & Southwestern Telephone Co. will install exchange at Nettleton.

Oklahoma City, Okla.—Crutchfield Telephone Co. Incorporated by E. A. Wagner, L. M. Warner and G. B. Alguire.

TEXTILE MILLS

Abbeville, Ala.—Abbeville Power & Manufacturing Co. Incorporated with \$500,000 capital stock by J. L. Pollard and associates to build cotton mill operated by electricity transmitted from water-power. (See "Electric Light and Power Plants.")

Aiken, S. C.—Cotton Yarns.—Aquila Manufacturing Co. Incorporated by John A. Seigler and R. B. Carter of Aiken, W. D. McNeil

of Fayetteville, N. C., and others; to build 10,000-spindle yarn mill lately reported.

Aniston, Ala.—Cotton Yarns.—Adelaide Mills begun construction of addition to increase capacity; now operates 5168 ring spindles.

Charlotte, N. C.—Cotton Cloth.—Fidelity Manufacturing Co. will install looms to weave product of 10,000 spindles.

Charlotte, N. C.—John W. Barlow Company of Lawrence, Mass., has representative in South investigating electric-power facilities with a view to building cotton mill reported last December.

Chickashaw, Okla.—Woolen Goods.—L. M. Potts will form \$150,000 company to establish woolen mill lately mentioned; address, care of Chickashaw Commercial Club.

Concord, N. C.—Ginghams, etc.—Locke Cotton Mills Co. has engaged R. L. McAllister as foreman for construction of additional mill previously reported; will erect one-story mill structure, with saw-tooth roof, 125x545 feet; will install 12,000 spindles to begin with; architect, Frank P. Sheldon of Providence, R. I.

El Reno, Okla.—Woolen Goods.—Western Woolen Mills Co. of Topeka, Kans., will establish mill at El Reno.

Geneva, Ala.—Geneva Power Manufacturing Co. incorporated with \$500,000 capital stock by D. O. Vaughan and associates to build cotton mill operated by electricity transmitted from water-power. (See "Electric-Light and Power Plants.")

Graniteville, S. C.—Sheeting, etc.—Graniteville Manufacturing Co. increased capital stock from \$600,000 to \$1,000,000; now operates 55,000 ring spindles and 1700 looms; T. L. Hickman, president, Augusta, Ga. No present plans for enlargement.

Greers, S. C.—Print Cloth.—John A. Robison, Arlington, S. C., and Greers parties, lately reported as to build mill, will erect building of slow-burning construction; four stories high; 135 feet 10 inches by 130 feet; first two floors for weaving, third floor for carding and fourth for spinning; will drive machinery by electric motors; plant to admit of ready enlargement in future; cotton machinery contracted for; equipment to include 10,000 spindles and 300 looms for print cloth production; architects in charge, Lockwood, Greene & Co., 93 Federal St., Boston, Mass.

Hickory, N. C.—Cotton Goods.—M. E. Thornton is interested in plan to locate large cotton mill in connection with his proposed water-power-electric plant of 6500 horsepower.

Lagrange, Ga.—Duck, etc.—Unity Cotton Mills will, it is reported, build 54x104-foot extension and install new machinery; present equipment, 10,368 ring spindles, 132 looms, etc.

Landis, N. C.—Cotton Yarn.—Corriller Mill organized with capital stock of \$100,000; C. J. Deal, president; L. A. Corriller, secretary-treasurer.

Little Rock, Ark.—Press Cloth.—Interstate Cottonseed Crushers' Association, A. D. Allen, president, will form company capitalized at \$300,000 to build camel's-hair press-cloth mill.

Summerville, Ga.—Duck, etc.—Summerville Cotton Mills will increase capital stock from \$150,000 to \$300,000; plan is to double mill, now operating 5000 ring spindles and 120 looms.

WATER-WORKS

Alpine, Texas.—Alpine Power Co., H. W. Townsend, general manager, will construct water-works to supply city; will also construct cement reservoir. (Recently noted. See "Machinery Wanted.")

Appalachian, Va.—City will issue \$50,000 of bonds for construction of water-works; estimates are invited. Address The Mayor. (See "Machinery Wanted.")

Asheville, N. C.—City will construct concrete reservoir; 250,000 gallons capacity; gravity system; cost \$20,000; plans by J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., engineers in charge.

Aspermont, Texas.—City is considering construction of water-works. Address The Mayor.

Benoit, Miss.—City has selected P. H. Porter, Clinton, Ky., to prepare plans for water-works system.

Berlin, Md.—City awarded contract to Fairbanks-Morse Company of New York to construct water-works and electric-light plant; equipment includes power-driven pump (built by Platt Iron Works Co., Dayton, Ohio) with daily capacity of 800,000 gallons per day, to be furnished by Morton McL. Dukehart, 413 Continental Bldg., Baltimore, Md.; Dodge & Day, Washington Bldg., Philadelphia, Pa., are engineers in

charge; Orlando Harrison, Mayor. (Previously mentioned.)

Bristol, Tenn.—City will install water-meter system estimated to cost \$15,000. Address The Mayor.

Broussard, La.—City will have plans prepared by P. H. Porter, Clinton, Ky., for water-works.

Calvert, Texas.—Calvert Water, Ice & Electric Light Co. will expend \$40,000 in improvements to plant. (See "Electric-light & Power Plants.")

Capitol Hill, Okla.—Board of trustees accepted plans and specifications for water-works system to cost \$35,000; propose to purchase site for standpipe and then invite bids. (Recently mentioned.)

Canyon, Texas.—City will vote on issuance of \$33,000 bonds for construction of water-works and sewer system. Address The Mayor.

Carmen, Okla.—City will endeavor to arrange for opening proposals in about 30 days for construction of water-works, for which \$30,000 bonds was reported voted recently; O'Neill Engineering Co., Dallas, Texas, is engineer in charge; Fred Van Wagner is Town Clerk.

Clarksville, Tenn.—City Council authorized water committee (composed of C. L. Perkins, G. K. Hale and D. B. Wood) to secure estimates on horizontal pump to be installed in filter plant and also on concrete floor for the plant. (See "Machinery, etc., Wanted.")

Corus Christl, Texas.—City will vote on issuance of \$90,000 of bonds for water-works improvement. Address The Mayor.

Cuero, Texas.—City Council will invite bids on drilling artesian wells to supply water. Address The Mayor.

Dothan, Ala.—City has engaged J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., to design and supervise construction of water-works, electric-light plant, sewer system and street paving; bonds for which have been voted; total expenditure between \$60,000 and \$100,000; plans will be complete in 60 or 90 days. (\$20,000 bond issue was recently reported voted for water-works and electric-light system.) H. W. Lisenby, clerk.

Fort Gaines, Ga.—City will construct water plant, build additional reservoir, increase size of mains, etc.; C. H. Chandler, Thomasville, Ga., has contract to drill 10-inch artesian well. Address The Mayor.

Grundy, Va.—Bids will be opened June 5 for installation of water plant at Grundy. Address T. Belcher, Big Rock, Va. (See "Machinery Wanted.")

Gulfport, Miss.—City is having plans and specifications prepared for water-works improvements recently mentioned; proposed to issue \$40,000 of bonds for extensions and installation of additional pump of 1,000,000 gallons capacity; no definite arrangements have yet been concluded. M. F. Sullivan, City Engineer.

Hartshorne, Okla.—City will open bids June 7 for purchase of cast-iron pipe, standard fire hydrants, water gate valves, pumps and boilers required in construction of water-works; O'Neill Engineering Co., Dallas, Texas, in charge. (See "Machinery Wanted.")

Hazlehurst, Ga.—City has engaged J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., to prepare plans for water-works, for which \$18,000 of bonds were recently reported voted.

Heflin, Ala.—J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., are preparing plans for proposed water-works and electric-light system at Heflin.

Heford, Texas.—City has engaged John B. Hawley, Fort Worth, Texas, an engineer to prepare plans and specifications and superintend construction of water-works; proposed to build 100,000-gallon water tower and drill system of wells; \$25,000 bond issue available. (Recently mentioned.)

Jonesboro, Ark.—City contemplates constructing reservoir at cost of \$5000; when completed plant will have capacity of 15,000,000 gallons. Address The Mayor.

Kansas City, Mo.—City has postponed date of election to July 13 for voting on issuance of \$4,125,000 bonds for following improvements: Water-works Improvement, \$1,500,000; 12th-street traffic way, \$350,000; river-front, improvements, \$75,000; park improvements, \$750,000; to purchase Chace school, \$25,000; for house of correction, \$75,000; for six new fire stations, \$150,000; Market-square improvements, \$125,000; street-repair plant, \$50,000; Inclining plant, \$200,000; tuberculosis hospital, \$25,000; Third Regiment armory, \$250,000; Battery B armory, \$75,000; general sewer purposes, \$300,000; art museum, \$175,000.

Lafayette, Ala.—J. B. McCrary & Co., Em-

pire Bldg., Atlanta, Ga., are preparing plans for proposed water-works at Lafayette.

Lancaster, Texas.—City is considering improvement of water-works; proposed to lay 3500 feet of new mains; cost \$5000. Address The Mayor.

Madison, Fla.—City will vote July 6 on issuance of \$5,000 of bonds for extending water mains. Address The Mayor.

Newberry, S. C.—City voted issuance of \$40,000 of bonds for extension of sewer and water systems. Address The Mayor.

Newport, Ky.—Commissioners of Waterworks will arrange for improvements to cost \$55,000; will construct standpipe with capacity of 150,000 gallons and install two pumps with daily capacity of 5,000,000 gallons; will also lay three miles of 20-inch auxiliary supply mains a mile or more of smaller pipe, etc.; W. L. Glanzier, superintendent; John W. Hill, First National Bank Bldg., Cincinnati, consulting engineer.

Okemah, Okla.—City will open bids June 15 for purchase of pipe, fittings, hydrants, valves and machinery necessary for construction of water plants; O'Neill Engineering Co., Dallas, Texas, in charge. (See "Machinery Wanted.")

Princeton, W. Va.—Princeton Water-Works Co. has engaged F. J. Van Antwerp, 200 Bond Bldg., Washington, D. C., as engineer in charge of constructing proposed water-works; water to be supplied from wells; equipment will include boilers, pumps, air compressor, pipe, hydrants, etc. Address F. R. Van Antwerp at Princeton after May 31. (See "Machinery Wanted.")

Rockmart, Ga.—J. B. McCrary & Co., Empire Bldg., Atlanta, Ga., are preparing plans for proposed water-works at Rockmart; city will open bids for construction August or September.

Talullah, La.—P. H. Porter, Clinton, Ky., is preparing plans for water-works at Talullah.

Taloga, Okla.—City is having plans prepared by F. W. Murch, Clinton, Okla., for water-works system recently mentioned; buildings will include engine-house, size not determined; \$16,000 bond issue will be voted.

Temple, Texas.—City Council appropriated \$15,000 for relaying water mains in proposed paving district. Address The Mayor.

Terr Alta, W. Va.—Daniel G. Adelsberger, 722 Pennsylvania Ave., Baltimore, Md., has completed plans and specifications for water-works system recently mentioned; reservoir 80x40 feet, concrete, capacity 250,000 gallons; equipment includes deep-well pump; wells already drilled; plans and specifications at office of W. T. White, president of company.

Towson, Md.—Alburgh Well Co. incorporated with \$10,000 capital stock by Albert S. Cook, T. Scott Offutt and W. Clarence Craumer; will furnish Towson and vicinity with artesian water from Alburgh wells.

Washington, D. C.—Commissioners District of Columbia (Henry B. F. MacFarland, Henry L. West and William V. Judson), Washington, approved recommendations of engineer department for following improvements: Four-inch water main, 100 feet, in alley between 14th and 15th streets, C street and South Carolina avenue; eight-inch water main, 50 feet, in Hamlin street; eight-inch water main, 350 feet, in High street; eight-inch water main, 405 feet, in 18th street N. E.; eight-inch water main, 90 feet, in T street.

Wheeling, W. Va.—Warwood Water & Light Co. incorporated with \$50,000 capital stock by B. W. Peterson, R. J. McCullough, John A. Moore and others.

Wheeling, W. Va.—City is considering installation of filtration system; Municipal Filtration Co., Elbert Oliver, president, Detroit, Mich., will submit estimate of cost. C. C. Smith, City Engineer.

WOODWORKING PLANTS

Durant, Okla.—Boxes, Crates, etc.—Fred A. Carlyle, East St. Louis, Ill., contemplates establishment of box and crate factory in Durant.

Guthrie, Okla.—Furniture.—Guthrie School & Office Furniture Manufacturing Co. incorporated with \$100,000 capital stock by Frank Dale, J. E. Douglass, Ben F. Hegler and others.

Knoxville, Tenn.—Cabinet Work.—Murphy-Jacks Cabinet Co. incorporated with \$25,000 capital stock by W. L. Murphy, T. C. Jacks, I. T. Jacks and others.

Morristown, Tenn.—Chairs.—Johnson Chair Co. is preparing to enlarge plant; will erect additional building, giving plant total floor space of 6000 feet; will install engine and boiler, etc., and double capacity.

Morristown, Tenn.—Furniture.—Company organized by T. L. Smith, Morristown; T. C.

Smith, Chattanooga, Tenn., and others to establish furniture factory; will erect building.

Pinehurst, Miss.—General Woodworking—Walworth-Neville Manufacturing Co. will rebuild woodworking plant reported burned; loss \$10,000.

Port Arthur, Texas.—Boxes.—Ben Sullivan, Houston, Texas, contemplates establishment of box factory.

BURNED

Abilene, Texas.—M. M. Mayfield's residence; loss \$6000.

Avondale, Md.—Howard Hull's dwelling, near Avondale; loss \$3000.

Blue Spring, Ga.—Blue Spring Hotel, J. J. McCranie, manager.

Canadlin, Texas.—Gulf, Colorado & Santa Fe Railway's roundhouse; loss \$50,000; C. F. Felt, chief engineer, Galveston, Texas.

Cho, Texas.—Saner-Whiteman Lumber Co.'s boiler-house and light and power plant; John C. Saner, president, Dallas, Texas.

Clevenger, Texas.—G. C. Williams' planing mill; loss several thousand dollars.

Crockett, Texas.—Daniels Sawmill Co.'s drykiln, near Crockett.

Elizabeth City, N. C.—D. M. Jones Hardware Co.'s store; building owned by Mr. Overman.

Ferris, Texas.—High school building; loss \$8000. Address The Mayor.

Florala, Fla.—Florala Sawmill Co.'s three drykilns and shed; loss \$50,000.

Fort Worth, Texas.—Rev. C. E. Brown's residence at Oakland; loss \$5000.

Frederick, Okla.—Ox-Campbell Grinn Co.'s grain elevator; loss \$20,000.

Gladwin, W. Va.—England & Notring's saw-mill; loss \$5000.

Hagerstown, Md.—Philip M. Bible's residence, near Black Gap; loss \$2000.

High Point, N. C.—Atlantic Furniture Co.'s machinery-room; loss \$40,000.

Kansas City, Mo.—Guyton & Harrington Mule Co.'s barn; loss about \$40,000.

Kansas City, Mo.—People's Ice Co.'s powerhouse; loss \$100,000.

Little Rock, Ark.—Mrs. John W. Hodges' residence, loss \$10,000; Fred Wolter's residence, loss \$3000; J. W. Null's residence.

Louisville, Ky.—Harry R. Whiteside's commission house; loss on building \$12,000.

Memphis, Tenn.—Memphis Cottonseed Oil Co.'s plant; loss \$150,000.

Mount Olive, Miss.—Town jail. Address The Mayor.

New Iberia, La.—Edward Broussard's stable.

New Orleans, La.—Edw. Store's cotton picker; loss \$10,000.

New Orleans, La.—J. G. Heineck's cistern factory at 3100 Bienville street; loss \$2000.

New Orleans, La.—H. G. Oliver and J. A. Miller's planing mill at 3100 Bienville street; loss \$3000.

Norfolk, Va.—Norfolk-Virginia Peanut Co.'s plant, building owned by W. W. Old; Virginia Boarding and Livery Stable, building owned by J. T. Bonney; total loss \$100,000.

Orange, Texas.—Lutcher & Moore Lumber Co.'s three drykilns.

Pinehurst, Miss.—Walworth-Neville Manufacturing Co.'s woodworking plant; loss \$10,000.

Richwood, W. Va.—Cherry River Boom & Lumber Co.'s plant damaged; loss \$10,000.

Stamford, Texas.—Jerome Duncan's residence; loss \$5000.

Vernon, Texas.—C. C. Shives' residence; loss \$3500.

DAMAGED BY EXPLOSION.

Jackson, Ky.—Imperial Coal Co.'s plant.

DAMAGED BY STORM

Italy, Texas.—Farmers' Union warehouse and oil mill.

WRECKED

New Orleans, La.—Bascule trunnion bridge at Esplanade avenue and Bayou street has been wrecked; Engineer A. M. Blamphorn in charge of construction for Penn Bridge Co. of Beaver Falls, Pa., contractor; W. J. Hardie, City Engineer.

WRECKED BY EXPLOSION

Tampa, Fla.—Florida Brewing Co.'s plant; estimated loss \$15,000.

BUILDING NOTES**APARTMENT-HOUSES**

Berkley, Station Norfolk, Va.—Alvah H. Martin awarded contract to John W. Jones of Berkley and South Norfolk, Va., to erect apartment-house; 50x100 feet; four stories; brick, with pressed-brick front and stone trimmings; 12 suites or apartments on each of three upper floors; ground floor to be divided into two storerooms; apartments to have combination gas and electric lights, call bells, steam heat, hot and cold water furnished from heating plant in cellar, dumb-waiter and electric service, etc.; cost \$27,000; Lee & Diehl of Norfolk, Va., prepared plans. (Previously mentioned.)

Dallas, Texas.—F. E. Warren purchased site, 135x185 feet, and is having plans prepared by Bulger & Son of Dallas for nine brick veneer flats; steam plant for furnishing heat will be in separate building; cost \$30,000.

Jacksonville, Fla.—Max Isaac and Frank T. Nooney of Thomas Nooney & Sons invite architects to submit plans until July 15 for apartment-house; fireproof; six stories; 105x105 feet; each floor, except basement, to be divided into four apartments of six rooms each; no kitchens, but will have baths; basement to contain cafe, with kitchen and pantry, etc.; heating, electric, vacuum cleaning and cooling plants, elevator machinery, etc.; two electrical elevators, one passenger and other combined freight and passenger; roof garden; plans to be delivered at 21 Julia street.

Kansas City, Mo.—John Sullivan will erect apartment-house; 52x34 feet; three stories; cost \$15,000.

Macon, Ga.—Mrs. A. M. Daly awarded contract to Wilder & Paulin of Macon to erect proposed apartment-house; 20 rooms; brick.

Oklahoma City, Okla.—Joseph Schoule, Decatur, Ill., and Andrew Shaw of Oklahoma City will erect brick flat to cost \$25,000.

Richmond, Va.—Company organized by Pollard & Bagby has had plans prepared by Carnal & Johnson of Richmond and invites bids for erection of apartment-house; 75x120 feet; seven stories; exterior of terra-cotta and brick; interior construction of reinforced steel concrete; fireproof; first floor to be divided into bachelor apartments of one and two rooms, with bath for each; upper floors into apartments of three to eight rooms; telephone system connecting practically every room; mail chute in main corridor; cost \$175,000.

Savannah, Ga.—Mrs. Johanna Bickman will erect apartment-house.

Washington, D. C.—Thomas Bryan Huyck, 1505 Pennsylvania Ave. N. W., reported as negotiating for site on which to erect apartment-house costing \$300,000.

BANK AND OFFICE BUILDINGS

Aspermont, Texas.—First National Bank contemplating erecting brick bank building.

Bay City, Texas.—First National Bank will erect two-story brick bank building.

Birmingham, Ala.—A. R. Dearborn, representing syndicate, purchased Alabama National Bank corner, 50x125 feet, for \$190,000, and is reported to erect office building.

Danville, Va.—Southern Express Co., J. M. Davis, local manager, awarded contract to R. B. Graham of Danville to erect office building.

Detroit, Texas.—First National Bank will erect bank building; 25x80 feet; fireproof; cost \$5000.

Holland, Texas.—First State Bank will erect two-story brick bank building; W. S. Reed, J. W. Sellers and others, directors.

Hubbard, Texas.—Hubbard City State Bank, J. M. Johnson, Jr., president, will erect two-story brick bank building.

League City, Texas.—Geo. W. Butler has plans by Andrew Drew, Houston, Texas, for erection of bank and office building; 75x75 feet; two stories; brick; ordinary construction; cost \$5000; Lucas & Smith, Houston, Texas, contractors.

Little Rock, Ark.—F. M. Fulk will erect office building; two stories; brick; 200x60 feet.

Memphis, Tenn.—Central Bank & Trust Co., N. C. Perkins, president, has had plans prepared by N. M. Woods of Memphis and James Gamble Rogers of New York for bank and office building; 18 or 21 stories; ground floor of white stone; remainder of steel and pressed brick; 120 offices; elevators; basement to be used for safety-deposit department; cost about \$250,000; bids on steel work have been invited and contract will soon be awarded. (Recently mentioned.)

Memphis, Tenn.—Memphis Cotton Exchange, John Sneed Williams, president, is considering erection of exchange and office building.

Northfork, W. Va.—Northfork Realty Co., Aaron Catzen general manager, Box 16, has plans by Joseph S. Shaw, Algoma, W. Va., and Walter Procter of Northfork for four two-story buildings; two to be built of white oak and two of concrete blocks; all to be finished in hardwood; office building, 26x42 feet; lower floor to be used as sanatorium; other three buildings to be 28x70 feet and used principally for general merchandise; 13-foot pitch lower storerooms and 9-foot pitch second stories; total cost, \$25,000. Address Mr. Shaw. (Company recently mentioned.)

Jacksonville, Texas.—Congregation will erect edifice to cost \$5000. Address The Pastor, Central Baptist Church.

Lawrenceburg, Tenn.—Presbyterian Church, L. J. Lewis, pastor, will erect edifice; brick or brick veneer; hot-air heat; electric lighting; cost \$5000. (Recently mentioned.)

Lynchburg, Va.—Methodist Protestant Church, Rev. J. L. Nichols, pastor, has had plans prepared for edifice at Fairview Heights; seating capacity of auditorium 262 and of Sunday-school room 140; cost \$4500.

Marietta, Ga.—Congregation contemplates erecting addition to edifice. Address The Pastor, First Baptist Church.

Memphis, Tenn.—Memphis Ministers' Association is considering erection of Methodist churches, one built in Binghamton at cost of \$5000.

Memphis, Tenn.—Harris Memorial Church, Rev. W. C. Waters, pastor, contemplates erecting edifice.

Moberly, Mo.—St. John the Baptist Church, Rev. P. J. Carney, pastor, will erect edifice to cost \$70,000.

Newport, Tenn.—M. E. Church South, J. F. Woodward, secretary building committee, has accepted plans for edifice reported recently; 60x60 feet; concrete blocks; common and face brick; steel ceiling; art-glass windows; slate and metal shingles for roof; hot-water or steam heat; electric lighting; cost \$10,000; committee in market for materials. (See "Machinery Wanted.")

North Wilkesboro, N. C.—First Baptist Church, Rev. C. M. Rock, pastor, will receive bids until June 14 for erection of edifice; J. S. Foster, chairman building committee; H. W. Horton, secretary.

Ozark, Ark.—Methodist Church awarded contract to Claude Tulley of Ozark to erect edifice at \$13,665.82.

Park, Station Knoxville, Tenn.—Methodist Episcopal Church has begun erection of proposed edifice; at present only Sunday-school room will be built; Rev. C. A. Davis of East Main Avenue Church is pastor.

Richmond, Va.—Tabernacle Baptist Church, Rev. Wm. Lockhart Ball, pastor, authorized R. H. Hunt, James Bldg., Chattanooga, Tenn., to prepare plans for \$50,000 brick and stone edifice; details have not been decided. (Recently mentioned.)

Washington, D. C.—Petworth M. E. Church, George C. Hough, chairman building committee, 700 Randolph St., has plans by Wm. J. Palmer, Warder Bldg., Washington, for erection of church; 65x95 feet; brick; Gothic style; steam heat; electric lights; cost \$20,000. (Recently mentioned.)

Washington, D. C.—Congregation is having plans prepared for edifice at 2715 N. St. N. W.; 50x30 feet; one story; cost \$15,000. Address The Pastor, Alexander Memorial Baptist Church of Georgetown.

Washington, D. C.—Christ Evangelical Lutheran Church has had plans prepared by Hardin & Upman, 729 15th St. N. W., Washington, and will soon award contract for edifice at New Jersey avenue and Morgan street N. W., to cost \$25,000. Local bidders include James L. Marshall, 614 13th St. N. W.; James A. Dowdle, 1625 1st St. N. W.; James T. Kenyon, Piper & Kenyon, 729 15th St. N. W.; Burgess & Parsons, 627 F St. N. W.; William E. Mooney, 1425 New York Ave. N. W., and William A. Kimmel, 1508 Columbia St. N. W.

Wichita Falls, Texas.—T. B. Noble, chairman building committee M. E. Church South, will receive bids until June 10 for erection of edifice; plans and specifications on file with building committee; certified check, \$750. Plans and specifications can be obtained from T. B. Noble, each application to be accompanied by certified check for 25 per cent.; plans by Flanders & Flanders, Dallas, Texas; two-story brick structure; 60x120 feet; steam heat; electric and natural-gas lighting; estimated cost \$25,000. (Recently mentioned.)

Winston-Salem, N. C.—Union Mission Church, Rev. J. D. Diggs, pastor, will erect edifice; 50x54 feet; frame; acetylene-gas generator for lighting; cost \$2000; contract awarded.

COURTHOUSES

Aspermont, Texas.—Stonewall county will vote July 10 on issuance of \$45,000 of bonds for erection of courthouse. Address County Commissioners.

Bessemer, Ala.—See item under "Birmingham, Ala."

Birmingham, Ala.—Jefferson County Board of Revenue ordered election for June 19 to vote on issuance of \$500,000 of bonds for 13-story courthouse and jail at Birmingham and \$100,000 courthouse and jail at Bessemer.

Chapin, Texas.—Hidalgo County Commissioners have plans by Atlee B. Ayres and H. T. Phelps, both of San Antonio, for erection of courthouse and jail; two stories; rock, brick; tile roof; fireproof; cost \$90,000. (Recently mentioned.)

Harrison, Ark.—Boone county awarded contract to A. M. Burns, Fayetteville, Ark., at \$31,000 to erect courthouse; plans by Charles L. Thompson, 504 Southern Trust Bldg., Little Rock, Ark. (Recently mentioned.)

Monticello, Miss.—Lawrence County Supervisors have named July 9 as date to vote on issuing \$50,000 bonds for proposed courthouse construction.

San Saba, Texas.—San Saba county will vote June 12 on issuance of \$75,000 of bonds for courthouse. Address County Commissioners.

DWELLINGS

Augusta, Ga.—W. R. Parks will build dwelling as lately reported; two-story wood structure; electric lighting; cost \$250; architects, Holman & Preacher, 403 Dyer Bldg., Augusta; contractor, R. J. Parks, 818 13th St., Augusta. (See "Machinery Wanted.")

Augusta, Ga.—Mrs. Lula C. Maxwell will erect residence in Monte Sano; mission style; stucco; tile roof; plans by Kemp & Wendall, Augusta.

Baltimore, Md.—Rodgers & McCall, 21 East Saratoga St., have had plans prepared by C. E. Anderson, Law Bldg., Baltimore, for cottage on Norfolk avenue; two stories; frame; 25x633 feet; cost \$3000.

Baltimore, Md.—Archibald Stuart is having plans prepared by C. E. Anderson, Law Bldg., Baltimore, for cottage on Park Manor avenue; frame; two and a half stories; cost \$4500; Wm. F. Breyer, Baltimore, contractor.

Baltimore, Md.—Patapsco Real Estate & Construction Co., Wm. M. Wells, 910 North Fulton Ave., president, has purchased six and three-quarters acres of land on Belvidere avenue, and will erect 125 dwellings; total investment \$300,000.

Baltimore, Md.—Ramey Bros., Law Bldg., are having plans prepared by Jacob F. Gerwig, 210 East Lexington St., Baltimore, for two dwellings at Howard Park; two and a half stories; frame; 25x41½ feet; slate roof; mill construction; steam heat; gas and electric lights.

Baltimore, Md.—Rev. W. A. Crawford Frost has had plans prepared by Stanislaus Russell, 290 Clifton Ave., for colonial residence at Windsor Hills; 47x44 feet; brick; stone foundation; front portico 20 feet wide, supported by four Doric columns two feet in diameter; sprinkling apparatus for roof.

Baltimore, Md.—J. E. Franklin, Culver St. near Grindon Ln., will erect 28 dwellings on Franklin and Pulaski streets; two stories; brick; stone foundations; 40x50 feet; pressed-brick fronts; marble trimmings; slate roof; combination fixtures; furnace heat; cost \$50,000.

Baltimore, Md.—Harry S. Barry, 205 Court House, awarded contract to Edward G. Turner, 200 Harlem Ave., Baltimore, for erection of dwelling on Roslyn avenue; two and a half stories; frame; 29x40 feet; stone foundation; slate roof; steam heat; cost \$5500.

Baltimore, Md.—Ernest P. Brandt, 30 Carswell St., awarded contract to George A. Gehl, 321 Jefferson St. N., Baltimore, for erection of three dwellings on Carswell street, Homestead; two stories; brick; 14x16 feet; brick foundation; cost \$4500.

Baltimore, Md.—Henry W. Johnson has had plans prepared for four dwellings at Walbrook; plans for two by Jacob F. Gerwig, 210 East Lexington St., Baltimore, and for the others David C. Sionaker, 625 West Fayette St.; two and a half stories; frame; slate roof; cost \$22,000.

Baltimore, Md.—Mrs. Annie C. Crandill, 824 South Paca St., will erect residence in North Forest Park.

Baltimore, Md.—Jesse F. Durbin, 507 Maryland Bldg., will erect residence on North Charles street.

Baltimore, Md.—Forest Park Co., 601 Maryland Telephone Bldg., awarded contract to

James L. Constantine, Arlington, Md., for erection of dwelling at Forest Park; two and a half stories; frame; stone foundation; slate roof; cost \$5000.

Baltimore, Md.—Francis E. Yewell, 2845 North Calvert St., will erect two residences on Powhatan avenue; sites 100x200 feet.

Baltimore, Md.—Chas. Dewers, 1935 Aliceanna St., will erect three residences at Overlea.

Baltimore, Md.—Roger B. Knott, 647 Dolphin St., will erect residence at Overlea.

Baltimore, Md.—Francis K. Carey, Calvert Bldg., awarded contract to John Cowan, 106 West Madison St., Baltimore, for remodeling residence at 509 Cathedral street and erecting addition; 24x40 feet; concrete foundation; slate roof; steam heat; cost \$15,000; plans by Ellicott & Emmart, Union Trust Bldg., Baltimore. (Recently mentioned.)

Baltimore, Md.—J. H. Riefer awarded contract to C. Perrigo, Baltimore, for erection of dwelling at Liberty Heights and Garrison avenues; two and a half stories; frame; 30x38 feet; steam heat; combination lighting; cost \$4000; plans by Jacob F. Gerwig. (See "Machinery, etc., Wanted.")

Baltimore, Md.—Philip Scheck, 225 North Eutaw St., awarded contract to Henry Maas, 1119 Ensor St., Baltimore, for erection of proposed residence at Lenox, previously noted; two and a half stories; frame; slate roof; plans by A. Lowther Forrest, Professional Bldg., Baltimore.

Baltimore, Md.—Everett S. Eppley, Warner and Stockham Sta., has had plans prepared by Henry J. Yinley, 314 North Charles St., Baltimore, for residence on Roslyn avenue; two and a half stories; slate roof; stone and cement foundation; steam heat; electric lights; cost \$4000.

Bamberg, S. C.—Methodist Church, Thos. G. Herbert, pastor, awarded contract to H. L. Antley & King, Cameron, S. C., for remodeling parsonage; frame structure; open fireplace grates and stoves; electric lights; cost \$3500; plans by W. K. & J. E. Dunne, Sumter, S. C.

Beaumont, Texas.—Paul A. Millard will erect residence; eight rooms; two stories; cost \$4000.

Birmingham, Ala.—William M. Walker will erect two-story stone veneer residence; cost \$11,000.

Birmingham, Ala.—F. S. Dunlop will erect dwelling; eight rooms; frame; mill construction; cost \$3500; will open bids June 1 for construction.

Chattanooga, Tenn.—John M. Macrae, care Macrae & Stuart, 700 Cherry St., is having plans prepared by Charles E. Bearden, Chamberlain Bldg., Chattanooga, for two-story frame bungalow on Mission Ridge (suburb); stone foundation; shingle roof; oak interior finish; gas and electric lighting; cost \$7000.

Chattanooga, Tenn.—J. M. Shaw, care J. M. Shaw Company, 839 Market St., awarded contract to S. C. Adams, Lake Ave., East Lake, Tenn., for erection of \$7000 residence on Vine street; two stories, basement and attic; frame, stucco on metal laths; tile floor; the bathroom; tile wainscot in kitchen; hot-water heat; electric and gas lighting; plans by George H. Ford, Detroit, Mich.

Chattanooga, Tenn.—W. H. Weatherford, care Archer Paper Co., 1124-1126 Market St., will erect two-story brick residence on Cherry street; 16 rooms; composition roof; hard pine interior finish; electric and gas lighting; cost \$4000.

Chattanooga, Tenn.—J. M. Shaw will erect stucco residence.

Chattanooga, Tenn.—W. T. Tyler, East 11th and Bond Sta., is having plans prepared by Huntington & Sears, News Bldg., Chattanooga, for residence on Lookout Mountain (suburb); one and a half stories; frame; shingle roof; hot-air heating; plans ready for proposals in two weeks.

Chevy Chase, Md.—T. A. Sonnemann, Brookville road, has plans by Spelden & Spelden, 1405 New York Ave., Washington, D. C., for erection of dwelling at Chevy Chase; 33x42 feet; two and one-half stories; stone foundation; pebble-dash; the roof; hot-water heat; electric lighting; cost \$8000; John Simpson's Sons, Washington, are estimating on contract.

Clinton, Tenn.—D. C. Richards will erect dwelling 40x60 feet; grates for heating; electric lighting; architects, M. E. Parmelee & Son, Knoxville, Tenn.

Dallas, Texas.—Chas. D. Fine, 603 Prudential Bldg., has plans by Hubbell & Greene, 506 North Texas Bldg., Dallas, for erection of dwelling; eight rooms; brick veneer; tile roof; mill construction; hot-water heat;

electric lights; cost \$7500; L. K. Wright, 346 Main St., Dallas, contractor.

Durham, N. C.—T. M. Gorman has plans by H. Linthicum, Durham, for erection of dwelling; 50x53 feet; two stories; slate roof; hot-air heat; electric lights; cost \$6000; B. Bowles & Bros., Durham, contractors. (Lately mentioned.)

Durham, N. C.—Victor S. Bryant will erect residence.

Fort Worth, Texas.—George Monnig will build dwelling on 57x212-foot site.

Fort Worth, Texas.—George Laneri will build dwelling on 75x200-foot site, to cost \$20,000.

Fort Worth, Texas.—Mrs. Rintleman will build dwelling.

Gainesville, Ga.—Harrison Martin will erect residence.

Hampton, Va.—J. F. Rowe awarded contract to Alexander Western, Hampton, for erection of residence; 37x42 feet; pressed brick; ordinary fireproof construction; hot-water heat; electric and gas lighting; cost \$12,000; plans by C. T. Holtzclaw, Hampton. (See "Machinery, etc., Wanted.")

Huntsville, Ala.—Horace E. Garth has purchased hotel on Monte Sano and will remodel for residence.

Kansas City, Mo.—J. Sidney Smith has plans by Selby H. Kurfiss, Kansas City, for residence; three stories; stucco construction; shower baths; two-story garage in rear, rear.

Knoxville, Tenn.—E. Kaderly will build dwelling 40x60 feet; hot-air heating; electric lighting; architects, M. E. Parmelee & Son, Knoxville.

Lebanon, Tenn.—O. N. Smith will erect residence; 10 rooms; New England colonial style; roof with gables at each end of house; outside walls painted weatherboards; hot-water heat; plans by Thomas S. Marr, Nashville, Tenn.

Lebanon, Tenn.—W. W. Wilson has had plans prepared by Thomas S. Marr, Nashville, Tenn., for 10-room residence.

Little Rock, Ark.—Mrs. John W. Hodges, Fred Wolters and J. W. Null will rebuild residences reported burned.

Lynchburg, Va.—Mrs. E. C. Wiley will erect frame dwelling with shingles; cost \$7000.

Nashville, Tenn.—John H. Dewitt has had plans prepared by Thomas S. Marr, Nashville, for proposed bungalow; 11 rooms; front porch and entire house under one roof, which will have gable on each side; outside walls covered with broad rough-sawn weatherboards; redwood shingle roof; furnace heat; electric lighting; cost \$7000.

Nashville, Tenn.—Randel Curell has had plans prepared by Thomas S. Marr, Nashville, for dwelling; nine rooms; brick; front porch supported by ashlar stone columns; red tile roof; furnace heat; cost \$10,000.

Nashville, Tenn.—Mrs. E. S. Sims will erect six-room cottage; outside wall of weatherboards; plans by Thomas S. Marr, Nashville.

Norfolk, Va.—Henry Henke, care of Dorsey Pender, will erect residence; contract for piling awarded to W. D. Murray, Norfolk, at \$1200; estimated cost of foundation alone \$400; exterior stone and brick; Lee & Diehl, Norfolk, supervising architects.

Norfolk, Va.—Chesapeake Cottage Co. incorporated with \$25,000 capital stock; J. L. Mills, president; W. H. Bonahon, vice-president; M. L. Bray, secretary and treasurer.

Norfolk, Va.—John Gray awarded contract to B. L. Nicholson, Norfolk, for erection of dwelling; two stories; frame.

Norfolk, Va.—G. L. Pender awarded contract to Salmon & Moore, Norfolk, for erection of dwelling; two stories; frame; cost \$4000.

Quitman, Ga.—W. W. Walker will erect residence.

Quitman, Ga.—S. S. Rountree awarded contract for erection of \$10,000 pressed-brick residence.

Richmond, Va.—Cohen Company will erect two dwellings to cost \$5000.

Richmond, Va.—Thomas Whittet will build residence, as lately reported; frame or cement on metal; 12 rooms; hot-water heat; electric lighting; cost not over \$10,000; architect or contractor not chosen.

Richmond, Va.—Dr. F. W. Stiff, 600 East Grace St., will build dwelling, as lately detailed; 40x45 feet; cost \$7000; other details not decided.

Ripley, Tenn.—J. M. Carney has had plans

prepared by Thomas S. Marr, Nashville, Tenn., for brick-veneered and frame bungalow; seven rooms and bath; hot-air heat.

Roanoke, Va.—Mrs. V. R. Orrell will build dwelling lately noted; frame; metal-shingle roof; hot-air furnace; cost \$4500; architect, H. H. Huggins, 609 Strickland Bldg.; contractors, Rhodes & Wade; all of Roanoke.

Roanoke, Va.—W. J. Henson has plans by H. M. Miller, Roanoke, Va., for erection of dwellings; hot-water heat; electricity and gas-lighting plant; cost \$12,000; A. L. Marshall, Roanoke, Va., contractor. (Lately mentioned.)

Rosemary, S. C.—Ben White and B. F. Barroore awarded contract to Wm. Doanmore, Georgetown, S. C., for erection of residences.

Ruxton Station, Baltimore, Md.—W. H. Dietrich has plans by Owens & Sisco, Continental Bldg., Baltimore, for addition to residence at Ruxton, to cost \$8000; contractors estimating include J. W. Jovell, Brown & Morgan, Builders' Exchange; Gladfelter & Chambers, 2072 Woodberry Ave.; Philip Watts, 222 St. Paul St., all of Baltimore, and Daniel Harding, Towson, Md.

Savannah, Ga.—J. S. Collins will erect nine dwellings.

Savannah, Ga.—W. A. Jones will build dwelling to cost \$4000.

Savannah, Ga.—J. C. Little will erect residence.

Savannah, Ga.—John Thomas will erect residence.

Savannah, Ga.—Washington Falk will erect residence.

St. Petersburg, Fla.—W. H. English will erect two-story bungalow.

Thomasville, N. C.—F. S. Lambeth awarded contract to J. L. Winnigham, Greensboro, N. C., for erection of residence; frame; hot-water heat; electric lights; cost \$15,000; plans by F. H. Weston, Greensboro, N. C.

Tomberlin, Ark.—Methodist Church will erect parsonage; eight rooms; annexed porches; plans by Rev. W. M. Jones, pastor.

Tulsa, Okla.—J. B. McDonald will erect two-story residences.

Washington, D. C.—James G. Hill of Hill & Kendall, Corcoran Bldg., awarded contract to John Nolan, 1413 G St. N. W., Washington, for residence at 1830 Connecticut avenue; three stories and English basement; colonial brick; Indiana limestone trimmings; cost \$18,000.

Washington, D. C.—Rev. Frank A. Schwalbender, Anacostia, D. C., R. F. D. No. 1, is having plans prepared by Julius Wenig, 1223 F St. N. W., for dwelling on Chapel road; 30x40 feet; frame; two stories and basement; hot-water heat; electric lighting.

Washington, D. C.—Daniel B. Miller, Jr., District Building, has prepared plans for 11 dwellings on Euclid street; two stories; red brick; cost \$35,750.

Washington, D. C.—James Martin is having plans prepared by Daniel B. Miller, District Bldg., Washington, for six dwellings on T street N. W.; two stories; cost \$19,200.

Washington, D. C.—Walter E. Wright, 902 F St. N. W., is having plans prepared by Daniel B. Miller, Jr., District Bldg., Washington, for dwelling at 121 East Capitol street; three stories; brick; cost \$7000.

Washington, D. C.—Richard Bailey, 513 8th St. N. W., has purchased site for \$18,500, containing 15,000 square feet, and will erect brick dwellings.

Washington, D. C.—Edward M. Dunn, 1270 New Hampshire Ave. N. W., will erect row of brick dwellings at 13th street and Cambridge place.

GOVERNMENT AND STATE BUILDINGS

Gulfport, Miss.—Postoffice and Customhouse.—Treasury Department, office of supervising architect, James Knox Taylor, Washington, D. C.—Proposals will be received until June 21 for construction (including plumbing, gas piping, heating apparatus, electric conduits and wiring) of U. S. postoffice and custom-house at Gulfport in accordance with drawings and specifications, copies of which may be had from custodian of site at Gulfport or at above office at discretion of supervising architect.

Washington, D. C.—Hospital.—Thompson Starrett Company, 51 Wall St., New York, has contract at \$23,295 to construct seven buildings at U. S. Naval Medical School Hospital; two and a half stories and basement; brick; concrete foundation; sick officers' quarters of fireproof construction; other buildings of wood interior finish; contagious ward will contain four distinct hospitals for isolation of contagious diseases; sick officers' quarters to be 68x90 feet, with accommoda-

tions for 17 men; male nurses' quarters, 35x80 feet, with accommodations for 50 nurses; female nurses' quarters, 40x81 feet, with accommodations for 21 nurses. R. C. Hollyday, chief of Bureau of Yards and Docks, Navy Department, Washington. (Recently mentioned.)

HOTELS

Aransas Pass, Texas.—J. P. Gandy awarded contract, it is reported, for erection of 20 room hotel.

Chattanooga, Tenn.—Klemm-Johnston Company incorporated with \$10,000 capital stock by F. K. Johnston, G. H. Klemm, A. W. Stanley, George D. Lancaster and Archer C. Norman to conduct hotel, to which improvements are being made.

Clifton Forge, Va.—J. F. Sachs, Roanoke, Va., contemplates erecting brick hotel to cost \$35,000 at Clifton Forge.

Gainesville, Ga.—D. M. Hyatt, Cartersville, Ga., is promoting erection of hotel to cost \$50,000.

Houston, Texas.—Jesse H. Jones telegraphs Manufacturers' Record that recent report regarding erection of \$1,000,000 hotel is incorrect.

Huntsville, Ala.—Huntsville, Chattanooga & Birmingham Electric Railway Co. reported to erect hotel.

Johnson City, Tenn.—H. W. Pardue will erect hotel; three stories; 60 or 65 rooms; 100x100 feet; tile floors; electric elevators; steam heat; cost \$50,000.

Kansas City, Mo.—Dr. H. E. Silverstone reported to erect hotel.

Kansas City, Mo.—F. H. Thwing will erect hotel and store; 51x61 feet; three stories; cost \$18,000.

Kensett, Ark.—J. A. Beville, Higgins Ark., will erect two-story hotel to cost \$4000 at Kensett.

Meherrin, Va.—B. H. Holloway, Elk Hill, Va., contemplates erecting hotel at Meherrin.

Oklahoma City, Okla.—Lee Huckins Hotel & Office Building Co., previously reported incorporated by Joseph Huckins, Jr., and others, has decided to abandon office feature of proposed building and to enlarge hotel arrangements to cover entire structure; 10 stories; 443 rooms; estimated cost \$300,000; contract awarded Selden-Breck Construction Co., St. Louis, Mo.

Pontotoc, Miss.—Salmon & Wilson will award contract June 15 for erection of hotel and store building; 60x180 feet; brick and stone; ordinary construction; steam heat; electric lighting; steam elevators; department store on first floor; hotel portion to contain 35 rooms; cost \$25,000. (See "Machinery Wanted.")

Princeton, W. Va.—Princeton Hotel & Restaurant Co., recently reported incorporated by J. P. Chapman, Beury, W. Va., and others, awarded contract for erection of hotel; three stories; 80x29 feet; ordinary construction; steam heat; electric lighting; cost \$4000. Address company, care Mr. Chapman.

San Antonio, Texas.—J. Flood Walker, Alamo National Bank Bldg., San Antonio, is preparing plans for St. Anthony's Hotel addition as recently reported; eight-story fireproof structure; concrete construction; steam vacuum heating; electric lighting; electric elevators; boiler and dynamo; contractor, Selden-Breck Construction Co., St. Louis, Mo.; cost of completed building \$350,000.

St. Louis, Mo.—Keilermann Contracting Co. will erect building; eight stories; first floor for storage rooms and stores; upper six floors for hotel; cost \$250,000.

MISCELLANEOUS STRUCTURES

Aspermont, Texas—Jail.—Stonewall county will vote June 10 on \$5000 bond issue to repair jail. Address County Commissioners.

Aspermont, Texas—Lodge.—Masonic Lodge will erect lodge building.

Athens, Ga.—Stores.—R. L. Moss, Sr., has plans by John D. Moss, Athens, for erection of store and theater building; three stories; 70x23 feet; brick; steel beams; electric lights; water or electric power passenger elevator; will install hand power foot elevator; cost \$25,000. (See "Machinery Wanted.")

Baltimore, Md.—Store.—Thomas O'Neill, Charles and Lexington Sts., awarded contract to J. Henry Miller, 119 Dover St., Baltimore, for erection of store building at 33 North Charles street recently noted; two stories; brick; cost \$20,000; plans by Baldwin & Pennington, Professional Bldg., Baltimore.

Baltimore, Md.—Store and Dwelling.—Ernest H. Schmidt, 317 North Fremont St., has plans by Henry Pierson & Son, 1000 Olive St., Baltimore, for store and dwelling at 315-317

North Fremont street; three stories; 30x52 feet; pressed-brick front; George Repp, 11 Stinson St., Baltimore, contractor.

Baltimore, Md.—Carriage-house.—James King, 44 North High St., awarded contract to John Hillz & Sons Company, 3 Clay St., Baltimore, for erection of carriage-house recently mentioned; three stories; 25x141 feet; cost \$3000; plans by John Freund, Jr., 210 East Lexington St., Baltimore.

Barnwell, S. C.—Jail, etc.—Sealed proposals for furnishing materials and performing labor required for erection and completion of county jail, with residence, will be received by jail building commissioners of Barnwell county until June 10. Plans and specifications can be seen at chairman's office or at office of George G. Smith, architect, Asheville, N. C. Form of bid furnished upon application. P. M. Buckingham, chairman.

Brady, Texas—Jail.—Commissioners' Court has ordered election for July 10 to vote on issuance of \$12,000 bonds to build jail.

Brunswick, Ga.—Clubhouse.—Elks' Lodge will erect clubhouse; three stories; pressed brick; cost \$30,000.

Charleston, S. C.—Store.—Louis Cohen & Co. has purchased adjoining store building and will remodel it and present building; will be 500 feet long; 250 feet two and three stories and 50 feet wide, the other 250 feet will be two stories, 25 feet wide; alterations will practically double present floor space of 40,000 square feet.

Chester, S. C.—Pavilion, etc.—Chester Amusement Association has let contract to J. R. Hamrick to erect pavilion 50x100 feet, and will build park for amusements.

Dallas, Texas.—R. Bergfeld, Tyler, Texas, will erect business building in Dallas; two stories; stone and brick; 154x181x90 feet; cost \$30,000.

Dallas, Texas—Business.—Dan Sonnenhell will erect three-story business building; site 30x100 feet.

Dallas, Texas—Business.—E. H. Ray has permit to erect business building; 37x100 feet; three stories; brick; concrete foundation; steam heat; freight elevator; cost \$18,500; architects, C. D. Hill & Co.; contractor, The Hewitt Company; all of Dallas.

Dallas, Texas—Business.—W. A. Fraser will erect business block; two stories; brick; 100x50 feet; cost \$5000.

Elizabeth City, N. C.—Store.—Mr. Overman will erect three-story store building to replace structure reported burned.

El Paso, Texas—Clubhouse.—Toltec Club awarded contract at \$2,813.50 to Smith & McArthur, Fort Morgan, Col., for erection of proposed clubhouse; cost \$80,000; plans by J. J. Huddart, Denver, Col.

Enid, Okla.—Business.—P. J. Goulding and Ed O. Alexander awarded contract to Frank Weller, Enid, Okla., for erection of two-story business building.

Fort Worth, Texas—Business.—W. H. Smith has purchased site 100x100 feet, and will erect business building; two stories; brick.

Johnson City, Tenn.—Hospital.—Johnson City and Washington County Medical Society planning to establish hospital; proposed to erect \$8000 building.

Kansas City, Mo.—Garage.—Smith-Snider Realty Co. will erect garage; 100x125 feet; cost \$10,000.

League City, Texas—Business.—G. W. Butler has plans and specifications for erection of 75x80 foot business building; has awarded construction contract.

Louisville, Ky.—Business.—Harry R. White-side will rebuild commission house reported burned; loss \$12,000.

Marked Tree, Ark.—Business.—E. Ritter will erect two-story brick business building.

Memphis, Tenn.—Garage.—V. L. Rogers awarded contract to Kaucher, Hodges & Co., Memphis, for erection of garage, etc., to cost \$2500.

Mobile, Ala.—Club and Office.—Beaver Home, E. W. Goos, chairman board of trustees, is preparing to erect club and office building; six stories; steel or reinforced concrete; fireproof construction; steam heat; electric and gas lights; electric elevators; cost \$50,000. (Recently noted.)

Montgomery, Ala.—Lodge.—Knights of Pythias will erect temple; cost \$75,000.

Norfolk, Va.—Stable.—J. T. Bonney will rebuild J. A. Prichett's stable building, reported burned.

Ozark, Mo.—Store.—Robertson Bros. have had plans prepared by Foley & Schreiber, Springfield, Mo., for store building recently mentioned; 40x80 feet; mill construction; hot-air heat; electric lights; hand elevator; cost \$6000; contract to be awarded about June 1. (See "Machinery Wanted.")

Paden City, W. Va.—Amusement Palace.—

Union Traction Co. awarded contract at \$11,989 to C. W. Dowling, Marietta, Ohio, for erection of proposed amusement palace.

Paragould, Ark.—Store.—Bertie Bros. have plans by Shaw & Pfeil, Memphis, Tenn., for rebuilding burned structures; 108x140 feet; three stories; steam heat; passenger and freight elevator.

Paris, Ark.—Business.—George W. Ritchie awarded contract to Lee Richards and H. E. Stufflebeam for erection of business block.

Paris, Ark.—Business.—Robt. L. Utley and Wm. Greenwood awarded contract to George Patterson for construction of business buildings.

Richmond, Va.—Stores.—Cohen Company will erect seven store buildings to cost \$50,000.

Richmond, Va.—Store.—Cohen Company will expend \$100,000 for addition and improvements to store building.

Richmond, Va.—Business Building.—Mrs. Helen Christian will erect business building.

Richmond, Va.—Store.—A. L. Straus has awarded contract to L. C. Jenkins, Richmond, Va., for erection of store; two stories and basement; brick; hot-air furnace.

Roanoke, Va.—Store.—Roanoke Music Co.'s store building, lately mentioned, will be 25x95 feet; two stories; brick; ordinary construction; steam heating; gas and electric lighting; architect, H. H. Huggins, 609 Strickland Bldg.; contractors, Rhodes & Wade; all of Roanoke.

Rosemary, S. C.—Lodge.—Knights of Pythias and Woodmen of the World awarded contract to E. T. Winters, Rosemary, for erection of lodge building.

Rotan, Texas—Business.—R. L. Allen has plans by and awarded contract to J. L. Wren, Rising Star, Texas, for business building; 30x100 feet; ordinary construction; concrete blocks; cost \$4000.

Rotan, Texas—Business.—W. E. Spencer plans prepared by and awarded contract to J. L. Wren, Rising Star, Texas, for business building; 30x100 feet; concrete blocks; ordinary construction; cost \$4000. (Mentioned in April.)

Rotan, Texas—Store and Office.—J. M. Whittle awarded contract to J. L. Wren, Rising Star, Texas, for store and office building; 60x100 feet; two stories; concrete blocks; ordinary construction; cost \$3000; plans by Yates, Rotan.

Rotan, Texas—Store.—C. H. Sharman has plans by Forrest Keen, Rotan, for erection of store; 25x100 feet; one story; brick; cost \$100; R. L. Holden, Rotan, contractor. (See "Machinery Wanted.")

Runn, Texas—Store.—W. N. Gann has awarded contract to Weeks & Husheil, Ryan, for erection of building; 50x100 feet; two stories; brick; cost \$10,730. (See "Machinery Wanted.")

Stanley, Va.—Store.—D. M. Modesitt will erect store building to replace burned structure; brick; 30x70 feet.

Tampa, Fla.—Business.—George C. Warren will erect three-story brick business building; cost \$20,000.

Tulsa, Okla.—Car Barn.—Tulsa Street Car Co. will erect one-story car barn to cost \$7300.

Union Spring, Ala.—Business.—Mrs. J. W. Wright will erect business building; two stories; brick.

Victoria, Texas—Business.—C. S. E. Holland, James F. Welder and Theodore Buhler will erect three-story red pressed brick business building with white stone trimmings; cost \$25,000.

Washington, D. C.—Store.—Elmer Jordan, president Merchants and Mechanics' Savings Bank, Seventh and G Sts. N. W., will award contract to Baltimore Ferro-Concrete Co., 16 St. Paul St., Baltimore, Md., for erection of store building at 13th and G streets northwest for E. F. Droop & Sons, 923 Pennsylvania Avenue; four stories; concrete and stone; cost \$70,000; plans by B. Stanley Simmons, 931 F St. N. W., Washington. (Previously noted.)

Washington, D. C.—Hospital.—Children's Hospital, 13th and W Sts. N. W., is having plans prepared by J. H. de Silvour, New York, for remodeling present structure and erection of two fireproof additions; flooring and walls of present structure will be replaced by concrete flooring and partitions; total cost of improvements, \$125,000.

Albany, Texas—City has voted \$20,000 of bonds for erection of school building. Address The Mayor. (Mentioned in April.)

Alvord, Texas—City has voted \$10,000 of bonds for erection of school building. Address The Mayor. (Noted in April.)

Ashland, Va.—Engine-house.—City will erect two-story brick engine-house. Address The Mayor.

Bainbridge, Ga.—City Hall.—City will vote June 8 on issuance of \$15,000 of bonds for City Hall. Address The Mayor.

MUNICIPAL BUILDINGS

Paden City, W. Va.—Amusement Palace.—

Baltimore, Md.—Truckhouse.—Board of Awards will receive separate bids at office of J. Sewell Thomas, City Register, until June 2 for erection of No. 2 truckhouse on Paca street between Lexington and Fayette streets, and for double apparatus building on Gorsuch avenue near Harford avenue; certified check, \$500; drawings and specifications on file at office of Edward D. Preston, Building Inspector, City Hall.

Camden, Ark.—City Hall.—City Hall, recently mentioned, will be 37x53 feet, two stories and basement; face brick and stone; concrete basement; electric lighting; estimated complete cost \$10,000; J. F. Hanson of Camden, contractor; Gibb & Sanders, Little Rock, Ark., architects.

Ensley, Ala.—Jail, etc.—City voted issuance of \$1000 of bonds for jail and \$6000 to improve fire department. Address The Mayor. (Recently noted.)

Richmond, Va.—Business Building.—Mrs. Helen Christian will erect business building.

West End, P. O. Birmingham, Ala.—Library, etc.—City awarded contract to Adams & Chamberlain of Birmingham to erect \$15,000 Carnegie free library and \$5000 fire station and City Hall; latter to be two stories; both buildings to be of pressed brick and ornamental stone, and harmonious in design; D. O. Whilden of Birmingham prepared plans. (Recently mentioned.)

RAILWAY STATIONS

Gadsden, Ala.—Louisville & Nashville Railroad awarded contract to Rommel Bros., Louisville, Ky., to erect passenger station at Gadsden; brick and stone; Spanish style of architecture; 50x150 feet; shed to be umbrella style with granite floors; cost between \$30,000 and \$35,000. J. B. Smith will have charge of brick work. (Mentioned in March.)

Houston, Texas—Houston Belt & Terminal Co., F. G. Pettibone, Galveston, Texas, president, tentatively adopted plans by Warren & Wetmore of New York for passenger terminal station and decided to begin construction at an early date; initial height, three stories; foundation to be capable of supporting eight-story building; 300 feet long; steel construction; first two stories of stone and succeeding one of brick; floor area, 14,140 feet; entire lower floor to be used for station; general waiting room, 100x100 feet; floor and wainscoting to be of marble; walls above wainscoting and ceiling in rough-plaster finish; electric elevator; telephone service; electric-light fixtures; electric fans; train sheds will be five blocks long and will provide for 11 tracks; cost, complete, with train sheds, \$450,000. In connection with station company proposes to build roundhouse, machine shops, electric-light plant for lighting both passenger and freight terminals, coach yard, coach-cleaning yard, yard for repairing cars, addition to South End yards, etc. (Recently mentioned.)

Memphis, Tenn.—Memphis Railroad Terminal Co., A. W. Biggs, president, is proceeding with arrangements preliminary to beginning actual construction work on union passenger station and terminal yards recently mentioned; estimates are now being prepared by engineers, and it is understood cost will approximate \$7,000,000, including \$1,200,000 already expended in acquiring land; also reported that company has decided to issue \$7,000,000 of bonds for financing plan; C. D. Purden of Memphis is chief engineer.

San Antonio, Texas—San Antonio & Aransas Pass Railway, J. S. Peter of San Antonio, general manager, reported to erect passenger station to cost \$100,000.

Tampa, Fla.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., reported as having awarded contract to E. W. Parker of Tampa for freight depot; one story; brick; cost \$9000.

SCHOOLS

Abbeville, La.—Vermilion parish contemplates voting special tax for erection of central high school building at Abbeville. Address Police Jury.

Aspermont, Texas—Stonewall county will vote June 12 on \$12,500 bond issue to erect school building. Address County Commissioners.

Austin, Texas—City will erect \$16,000 manual-training school building. Address The Mayor.

Bainbridge, Ga.—City will vote June 8 on \$50,000 bond issue to erect school building. Address The Mayor.

Baltimore, Md.—Friends' School, Park Ave. and Laurens St., awarded contract to J. Henry Miller, 110 Dover St., Baltimore, for gymnasium building recently noted; one story; brick; 34x88 feet; slate roof; cost \$9000; plans by C. M. Anderson, 224 North Charles St., Baltimore.

Baltimore, Md.—House of Good Shepherd

awarded contract to Thomas Reilly & Co., Philadelphia, Pa., for erection of school and dormitory buildings at Calverton, recently mentioned; plans call for two four-story mezzanine brick structures and three-story addition to present structure; double buildings, each 18x33 feet; concrete foundations; slate roofs; hot-water heat; combination lighting; cost \$200,000; plans by Thomas C. Kennedy, 516 Law Bldg., Baltimore.

Barboursville, Va.—Bids will be received until June 1 for erection of school building at Barboursville; plans on file with G. W. Barbour, chairman, and E. F. Sommers, clerk, Barbour District School Board, Somerset, Orange Co., Va.

Cameron, S. C.—City has named E. J. & W. K. Dunne, Sumter, S. C., as architects for proposed school; \$10,000 bonds reported voted recently; plans and specifications on file with architects.

Cave Springs, Ga.—Hearn Academy is preparing to erect additional buildings, to cost \$40,000.

Chattanooga, Tenn.—Wilbur M. Johnson, 502 East 4th St., Chattanooga, lowest bidder at \$15,000 for gymnasium and manual-training building at Ridgedale (suburb); two stories and basement; red brick; composition roof; 100x100 feet; steam heating; electric lighting; shower baths and plumbing; plans by Adams & Alsup, James Bldg., Chattanooga; plans will be revised and contract probably awarded to Mr. Johnson at lower figure.

Cordele, Ga.—City contemplates bond issue to erect two school buildings. Address The Mayor.

Corpus Christi, Texas—City will vote June 15 on \$75,000 bond issue to erect two school buildings. Address The Mayor.

Culpeper, Va.—City has voted \$25,000 of bonds to erect school building. Address The Mayor. (Recently mentioned.)

D'Hanis, Texas—City will vote June 8 on \$8000 bond issue to erect school building. Address The Mayor.

De Witt, Ark.—Directors of De Witt School District will issue \$20,000 bonds to erect school building.

Durant, Okla.—City has accepted plans by Sparger & Peters, Bonham, Texas, for south side school building; colonial style; 60x70 feet; two stories and basement; cost \$15,000.

Eagle Rock, Va.—City is planning to erect school building. Address The Mayor.

El Dorado, Ark.—City has voted special tax to erect school building. Address The Mayor.

Easley, Ala.—City has voted \$100,000 of bonds to erect school building. Address The Mayor. (Recently mentioned.)

Eros, La.—School Board, W. H. Allen, president, will erect brick school building.

Franklin, N. C.—Franklin School District has voted \$12,000 of bonds to erect school building; S. H. Lyle, chairman School Board.

Gordo, Ala.—City has voted \$6000 of bonds to erect school building. Address The Mayor.

Hallettsville, Texas—City has voted bonds to erect school building. Address The Mayor.

Handley, Texas—Bids will be received until June 10 for erection of nine-room brick and stone school building at Handley; certified check for \$500; plans and specifications on file at offices of M. L. Wainer, architect, Fort Worth, Texas, or of William D. Weiler, secretary Board of Education.

Houston, Texas—Bids will be received at office of Sanquinet & Staats, architects, First National Bank Bldg., Houston, until June 5 for erection of addition to high-school building; certified check for \$1000, payable to A. S. Cleveland, secretary Houston School Board; plans and specifications on file at office of architect. (Mentioned in April.)

Itasca, Texas—Itasca Independent School District, W. H. Coffman, president, has voted issuance of bonds for school building; 15

rooms and auditorium; brick; steam heat; electric lights; cost \$25,000.

Itasca, Texas.—Itasca Independent School District has voted proposed bonds to build school; amount, \$35,000.

Katy, Texas.—City has voted \$6000 of bonds to erect school building. Address The Mayor.

Kings Mountain, N. C.—City will erect school; approximate cost \$15,000. Address W. A. Mauney. (See "Machinery Wanted.")

Korville, Texas.—City has voted \$3000 of bonds to erect school building. Address The Mayor.

Lenox, Tenn.—City is having plans prepared by John Gainford, Memphis, for school building; 10 or 12 rooms; brick; stone trimmings. (Bond issue recently noted.)

Lincoln, Va.—Loudon county will erect high-school building between Lincoln and Purcellville, to cost \$13,000; E. E. Garrett, Charles P. Janney and L. M. Shumate, School Board, Lincoln.

Lookeba, Okla.—School District 131 has plans by T. C. Coup, Gracemont, Okla., for erection of school; 36x65 feet; two stories; four rooms; frame; stoves; cost \$4000; will award contract June 15. (See "Machinery Wanted.")

Luling, Texas.—City will vote June 18 on \$10,000 bond issue to improve school building. Address The Mayor.

Madison, Fla.—City will vote July 6 on \$5000 bond issue to erect dormitory for Florida Normal Institute. Address The Mayor.

Madisonville, Ky.—City will vote in June on \$12,500 bond issue for erection of high-school building. Address The Mayor.

Marks, Miss.—City has adopted plans for school building to cost \$6500. Address The Mayor.

Martinsburg, W. Va.—Board of Education will receive bids until May 31 for erection of four-room brick addition to High-street school and two-room addition to Hooge-street school; plans and specifications on file at office of W. A. Plitzer, secretary; separate bids for each addition; H. L. Alexander, president Board of Education, Martinsburg.

Martinsburg, W. Va.—City awarded contract at \$23,387 to S. A. Westenhaver, Martinsburg, for erection of school building recently mentioned; 108x60 feet; two stories and basement; brick; brownstone trimmings; slate roof; portico on front, supported by four wooden columns; heating and ventilating contract awarded to Columbus (Ohio) firm at \$3910.

Mayesville, S. C.—City awarded contract to T. B. Fort, Mayesville, for erection of school building recently mentioned; two stories; brick; Indiana limestone trimmings; hot-air heat; cost \$7000; plans by J. H. Sams, Columbia, S. C.

Montgomery, Ala.—Women's College accepted plans by Warren & Smith, Boston, Mass., for proposed building.

Monticello, Miss.—City may build \$10,000 school instead of \$3500 school reported lately. Address The Mayor.

Murphy, N. C.—Cherokee county will vote June 5 on \$10,000 bond issue to erect school building; Ben Posey, chairman Board of County Commissioners.

Paxville, S. C.—City has voted \$10,000 of bonds to erect school building; F. S. Geddings, J. W. Mims and T. P. Brown, board of trustees.

Paxville, S. C.—School Commissioners have named E. J. & W. K. Dunne, Sumter, S. C., as architects for proposed school; six classrooms and auditorium; brick construction; cost \$9000; architects to award contract about June 10; F. S. Geddings, chairman of Commissioners.

Peach Tree, N. C.—School District, H. R. Elliott, secretary, has voted bonds to erect school.

Ringgold, Texas.—City has voted \$12,000 of bonds to erect school building; brick or concrete.

Rock Hill, S. C.—Bids will be received at office of D. B. Johnson, president Winthrop College, Rock Hill, until June 4 for erection of dining-hall, kitchen and dependences and extension of rear wing of main building, including steam heating, plumbing, electric wiring, refrigeration, etc.; certified check for \$5000 with each bid for construction and for \$22 with each heating bid, payable to D. B. Johnson, president; plans and specifications on file at office of Edwards & Walters, architects, 631 Candler Bldg., Atlanta, Ga., or at Winthrop College, or can be obtained from architect by depositing certified check for \$25; subcontractors can secure drawings and specifications by depositing \$10; D. B. Johnson, O. B. Martin and W. J. Roddy, committee for trustees. (Noted in April.)

Roscoe, Texas.—City has voted \$6000 of

bonds to erect school building. Address The Mayor.

Rotan, Texas.—City awarded contract to Highsmith & Sherman, Stamford, Texas, for erection of school building recently mentioned; 11 rooms; brick; stone trimmings; cost \$18,000; plans by E. G. Withers, Stamford, Texas.

San Saba, Texas.—City will vote June 4 on \$40,000 school bond issue. Address The Mayor.

Shamrock, Texas.—City will vote June 1 on \$20,000 bond issue to erect school building. Address The Mayor.

Staunton, Va.—Mary Baldwin Seminary, Rev. A. M. Fraser, president, will erect building to cost \$20,000.

St. George, Ga.—City contemplates erection of school building to cost \$3000. Address The Mayor.

Summerville, Ga.—City contemplates issuance of bonds to erect \$25,000 school building. Address The Mayor.

University, Ala.—University of Alabama awarded contract to B. C. Bynum Construction Co., Montgomery, Ala., for remodeling Woods Hall; cost of improvements, including heating, etc., \$30,000; plans by Frank Lockwood, Montgomery, Ala. (Mentioned in April.)

Van Alstyne, Texas.—City contemplates issuing \$12,500 of bonds to erect school building. Address The Mayor.

West End, P. O. Birmingham, Ala.—City awarded contract to Adams & Chamblee of Birmingham to erect school building; two stories; pressed brick; marble trimmings; reinforced concrete corridors; vacuum-cleaning system; mechanical heating and ventilating systems; cost \$26,000; plans by D. O. Whilden of Birmingham. (Recently mentioned.)

Wichita Falls, Texas.—City has voted \$80,000 of bonds to erect two school buildings. Address The Mayor. (Mentioned in April.)

THEATERS

Baltimore, Md.—Clarence E. Anderson, Law Bldg., Baltimore, has completed plans for proposed moving-picture and vaudeville theater at River View; Moorish style; 32x160 feet; one story; concrete foundation; slate roof; electric lighting; tile flooring; seating capacity, 500; Hargrave Bros., 409 North Carrollton Ave., builders and managers.

Marked Tree, Ark.—E. Ritter, W. B. Miller and M. W. Hazel contemplate erecting opera-house and lodge hall, 100x150 feet, at cost of \$10,000.

Miami, Fla.—Dade County Title Insurance Co., J. N. Lumus, secretary, has plans by W. C. De Garmo, Miami, for erection of theater; 60x110 feet; concrete construction; fireproof; electric lights; cost \$10,000; F. A. Hahn, Miami, contractor. (Lately mentioned.)

St. Louis, Mo.—Fishell Bros. & Carpenter Company incorporated with \$2000 capital stock by Daniel S. Fishell, Henry Fishell, Samuel J. Fishell and others.

Washington, D. C.—Julius Wenig, 1223 F St. N. W., Washington, is preparing plans for auditorium at 808 K street northwest; 36x80 feet; three stories; finished in cement and stone; seating capacity 400; structural iron; hot-water heat; electric lighting; cost \$10,000; bldgs opened May 27.

Washington, D. C.—Eastern Amusement Co. is having plans prepared by Harding & Upman, 729 15th St. N. W., Washington, for moving-picture theater on 8th street S. E.; 25x87 feet; seating capacity 325; cost \$10,000.

WAREHOUSES

Blackstone, Va.—Blackstone Planters' Warehouse Co. incorporated with \$30,000 capital stock; R. W. Tuggee, president; D. L. Tuggee, secretary-treasurer; S. G. Williams, general manager.

Chattanooga, Tenn.—Chattanooga Warehouse & Elevator Co. incorporated with \$15,000 capital stock by J. T. Thomasson, P. R. Wilhoite, L. L. Peak, W. K. Thomasson and W. B. Garvin to operate grain elevator and conduct storage warehouse; has secured and remodeled property at 14-20 Boyce street, formerly known as Union Elevator.

Franklin, Va.—J. S. Ball and J. L. Abbott of Danville, Va., are proceeding with construction of warehouse at Franklin; 150x70 feet; mill construction; skylights; cost \$3500; Booker Daneton, Danville, contractor. (See "Machinery Wanted.")

Johnson City, Tenn.—Model Mill Co., J. W. King, president, Bristol, Va.-Tenn., will erect warehouse at Johnson City; 42x86 feet; four stories; cost \$8000.

Lexington, Ky.—Stivers & Hawkins, 636 S. Broadway, will erect tobacco warehouse;

100x160 feet; frame; composition roof; gas light and heat; hand elevator 300 pounds capacity; cost \$7000; acts as own contractor.

Maysville, Ky.—Maysville Loose Leaf Tobacco Warehouse Co. incorporated with \$25,000 capital stock by H. D. Ellis and M. A. Shinkle, Higginsport, Ohio, and William Geppenbacher, Vanceburg, Ky.; will open bids June 1 for erection of warehouse; fireproof; one story; 71x291 feet; brick; concrete flooring; cost \$20,000; plans by Hendricks, Moore, Young & Co., Lexington, Ky.

Memphis, Tenn.—Memphis Warehouse Co., Lee Mallory, president, will soon award contract for erection of proposed 15 warehouses, or compartments, in New South Memphis; each structure to have floor space 90x75 feet; trolley system for carrying cotton bales from tracks to places in warehouse; provide additional capacity of 50,000 bales per annum; estimated cost of work now decided upon is \$100,000; company is also considering erection of 15 more compartments, making total of 30 new warehouses and involving expenditure of \$200,000.

Pleasant Hill, Mo.—Hunt Bros. will erect warehouse 60 feet long, 40 feet wide and 14 feet deep.

Reidsville, N. C.—W. R. Saunders, Lawsonville, N. C. (R. F. D. from Reidsville), is promoting erection of tobacco warehouse.

St. Louis, Mo.—Goodman Distilling Co. of Memphis and Nashville, Tenn., purchased site in St. Louis for warehouse to cost \$75,000.

Tullahoma, Tenn.—Hugh McCoy is having plans prepared for concrete warehouse and storerooms.

Wheatley, Ark.—Wheatley Rice Mill & Power Co. awarded contract to Ilsen & Lesh, Memphis, Tenn., for erection of warehouse and other buildings. (See "Miscellaneous Manufacturing Plants.")

Winchester, Ky.—R. C. Mansfield will erect warehouse.

RAILROAD CONSTRUCTION

RAILWAYS

Abilene, Texas.—Reported that Ed. S. Hughes and others of Abilene are promoting a plan to build a line from Abilene to Waco, Texas.

Ada, Okla.—The Ada Terminal Railway Co. is reported incorporated by Dorset Carter and others to provide an entrance for the Oklahoma Central Railway. Address, Purcell, Okla.

Ardmore, Okla.—Oscar O. Ayers of Olathe, Kan., and others propose to build a railroad from Ardmore to Chickasha. The Ardmore Commercial Club is interested.

Ardmore, Okla.—An officer of the Frisco system informs the Manufacturers' Record that the press report saying that the Frisco has resumed grading on a line from Ardmore to Waurika is incorrect.

Beaumont, Texas.—The Kansas City Southern Railway, it is reported, has officially announced that \$2,000,000 will be spent to improve terminal facilities at Port Arthur, Texas, and that a total of \$5,000,000 will be devoted to general improvements on the system. Several miles of new track will be built at Port Arthur. A. F. Rust is chief engineer at Kansas City, Mo.

Bennettsville, S. C.—John Ickes is reported promoting plans for a railroad to connect Bennettsville, S. C., with Winston and Rockingham, N. C., and possibly to have a tide-water terminal at Georgetown, S. C.

Castalia, N. C.—A fund of \$15,000 is reported subscribed to secure the construction of a railroad to Castalia. Negotiations are also reported with the Rocky Mount & Northern, owned by the Tar River Lumber Co., for the desired extension. W. L. Groom is manager at Rocky Mount, N. C.

Clinton, Okla.—The Rock Island & Frisco system, says a press dispatch, will build three passing tracks at Clinton more than a mile long. J. B. Berry is chief engineer of the Rock Island at Chicago and M. L. Byers is chief engineer of the Frisco at St. Louis.

Columbus, Miss.—The Interstate Lumber Co. of Columbus is reported securing right of way for a railroad from Columbus, Miss., to Winfield, Ala.

Del Rio, Texas.—The Galveston, Harrisburg & San Antonio Railway, it is announced, will reconstruct part of the viaduct over the Pecos River, between Comstock and Shumla, Texas, replacing 600 feet of trestle work with an embankment. A. V. Kellogg is engineer maintenance of way at Houston, Texas.

Doniphan, Ark.—The Doniphan, Kensett & Searcy Company has been incorporated to take over the property of the railroad of the

same name. The line is six miles long from Doniphan to Searcy and Kensett; capital \$100,000; C. J. Carter, M. L. Stocking, C. E. Emmert, H. R. Kirkpatrick and A. E. Hartsell are the incorporators.

El Reno, Okla.—Vice-President W. E. Crane and General Manager W. L. Bushnell of the Fort Smith & Western Railway are reported as saying that construction will begin before September on an extension west from El Reno. Headquarters, Fort Smith, Ark. It is also reported that the company contemplates building into Oklahoma City.

Fish Springs, Tenn.—The Watauga & Doe River Railway Co., capital \$10,000, has been chartered to build a line from a point on the Virginia & Southwestern Railroad near Fish Springs to a point on the East Tennessee & Western North Carolina Railroad below Blevins Station. The incorporators are C. F. Camp, O. H. Vinall, J. R. Fletcher, T. J. Williams and J. H. Tipton.

Fitzgerald, Ga.—An officer of the Fitzgerald & Northwestern Railroad Co. writes the Manufacturers' Record that it is expected to apply for a charter early in June. Two routes are being considered, and the line will be about 80 miles long, crossing the Seaboard Air Line at or near Rochelle, Ga.; the Gulf line at or near Pineview, and perhaps touching Hawkinsville. The question of building from Fitzgerald southward to St. Marys has not yet been taken up. W. R. Bowen is temporary president and J. G. Knapp temporary secretary. These, with M. W. Garbutt, D. B. Jay of Fitzgerald, J. J. Dorminey of Broxton and T. S. Price of Douglas, Ga., are the promoters. Mr. Knapp is Mayor of Fitzgerald.

Garvin, Okla.—The Garvin & Northwestern Railroad Co. has been chartered with \$100,000 capital to build a line from Garvin to Dexter, Okla., 55 miles, with a branch to Eagletown, 25 miles. The directors are E. E. Bushy, C. Gamble, G. A. Spaulding and William D. Enger of Garvin, Okla., and A. J. Waldeck of Oklahoma City.

Gassaway, W. Va.—C. P. Peyton of Charleston, W. Va., is engineer in charge for the Elk & Little Kanawha Railroad, which is to be built from Gassaway, on the Coal & Coke Railway, to a point near Rosedale, on the Little Kanawha River, about 16 miles, and contract will be let soon.

Johnson City, Tenn.—The Carolina, Clinchfield & Ohio Railroad Co., it is reported, has let the contract to build its extension from Dante, Va., to Elkhorn City, Ky., about 40 miles, which will cost about \$6,000,000. M. J. Caples is general manager and vice-president at Johnson City, Tenn.

Lexington, Ky.—Contract for the electric interurban railway of the Central Kentucky Traction Co. from Lexington to Nicholasville, 12 miles, has been let to David Pepper, Jr., of Philadelphia. Swethurst & Allen, engineers and contractors, also of Philadelphia, will do the work. J. B. Crawford of Lexington is general manager of the line.

Little Rock, Ark.—Lund & Hill of Little Rock have made a preliminary survey for a proposed branch from Letona, on the Missouri & North Arkansas Railroad, near Heber, Ark., to Quiltman, about 14 miles. It is rumored that the line may be extended from Quiltman to Morrisville, Ark., 35 miles.

Lumberton, N. C.—The Virginia & Carolina Southern Railroad has completed its extension from Lumberton to Hope Mills, seven miles.

Macon, Ga.—The Georgia Southern & Florida Railway is reported improving its terminal facilities at Macon. The Hall & Parker Construction Co. has begun grading for additions to the shops.

Manchester, Va.—The Seaboard Air Line has applied for a franchise to build an extension to its proposed depot. W. L. Seddon is chief engineer at Portsmouth, Va.

Marshall, Texas.—The Marshall & East Texas Railroad Co., at a stockholders' meeting, approved plans to extend from Marshall to Newton, Texas, about 125 miles; J. E. Vawter is superintendent at Marshall, Texas.

Memphis, Tenn.—The Memphis Railroad Terminal Co. has appointed C. D. Purdon chief engineer in place of W. H. Harrison, resigned. It is reported that \$7,000,000 of bonds will be issued. The cost of the proposed terminal has heretofore been estimated as from \$3,500,000 to \$5,000,000. A. W. Biggs is president.

Nashville, Ark.—Stockholders of the Memphis, Paris & Gulf Railway Co. have decided that extensions shall be made to Little Rock and to Greenville, Texas. It is expected to complete the line to Murfreesboro in June. C. W. Dodson of Nashville, Ark., is superintendent.

Nashville, Tenn.—The Tennessee Central Railroad, it is reported, will build an exten-

sion from Carthage, Tenn., to Hodgenville, Ky., about 100 miles. L. F. Lonnblad is chief engineer at Nashville, Tenn.

Oklahoma City, Okla.—John W. Shartel, vice-president and general manager of the Oklahoma City Traction Co., and Harry M. Daugherty of Columbus, Ohio, the latter representing an Ohio syndicate, are reported as contemplating plans for an interurban electric railway 50 miles long from Guthrie via Oklahoma City to Norman, Okla., and another line 62 miles long from El Reno via Oklahoma City to Shawnee, Okla.

Oklahoma City, Okla.—The Missouri, Kansas & Texas Railway, according to a dispatch, will revise 14 miles of track in the Deep Fork Valley north of Oklahoma City. Grades are also to be reduced. S. B. Fisher is chief engineer at St. Louis.

Oklahoma City, Okla.—E. I. Wade of the Oklahoma Interurban Traction Co. of Oklahoma City is reported making arrangements to build two lines, one from Oklahoma City to Shawnee, Okla., and the other from Oklahoma City to El Reno, Okla. This is the company promoted by L. E. Patterson. It is reported that the Fred A. Jones Company of Dallas, Texas, will get the contract.

Panola, Ala.—The Alabama, Tennessee & Northern Railroad has, it is reported, completed and put in service its line to Panola. John T. Cochrane of Mobile, Ala., is president.

Perry, Okla.—The Cherryvale, Oklahoma & Texas Railway is the name of the line to be built by the Continental Construction Co., just organized by S. M. Porter of Caney, Kans., who is president of the railroad and its chief promoter. The road was projected six years ago, and is designed to connect Pawhuska, Perry, Kingfisher, Geary and Mangum, Okla.; Childress, Lubbock and Floydada, in Texas, besides several towns in New Mexico, the terminus to be El Paso, Texas. A branch is to run from Childress via Benjamin, Stamford, Brady, Fredericksburg and San Antonio, Texas, to Aransas Pass, Texas. The authorized capital is \$30,000,000. The directors are reported as follows: S. M. Porter, Caney, Kans., president; R. Gubbay, Paris, France, first vice-president; George A. Masters, Perry, Okla., second vice-president. Directors are Count Richard D'Abour, Charles Bayle, Louis Blocq, Roger Trousselle, Adolphe Whitecombe, all of Paris, France; F. D. Brewster, Independence, Kans.; R. E. Wade, Perry, Okla.

Peterstown, W. Va.—Construction is reported begun on the Peterstown & Rich Creek Electric Railroad, in which C. M. Spangler and others are interested.

Petersburg, W. Va.—Contract to build the Hampshire Southern Railroad from Romney to Moorefield and Petersburg, W. Va., about 40 miles, is reported let to the Frank H. Blodgett Construction Co. of Wheeling, W. Va. W. B. Cornwell of Fairmont, W. Va., is president, and John J. Cornwell of Romney is vice-president. M. E. Ailes and J. E. Small of Washington, D. C., are also reported interested. William Trapnell, it is reported, will have charge of construction. The Baltimore & Ohio Railroad is reported interested. A. S. Brady of Fairmont, W. Va., is engineer.

Pine Bluff, Ark.—The Manufacturers' Record is informed by one of the incorporators of the Pine Bluff & Southwestern Railroad that the proposition is still in embryo and nothing definite is decided. P. P. Byrd, S. C. Alexander, J. F. Rutherford and others of Pine Bluff are interested.

Plainview, Texas.—An officer of the Atchison, Topeka & Santa Fe Railway is quoted as confirming the report that contract has been let to extend the Pecos & Northern Texas division from Plainview to Lubbock, Texas, about 47 miles, and that Moore & Harris have the contract. G. W. Harris, Amarillo, Texas, is chief engineer of construction.

Provident City, Texas.—The Provident Railway Right of Way Co., capital \$5000, has been chartered to build a railroad from Glen Floro, on the Santa Fe, 23 miles, or from El Campo, on the Southern Pacific, about the same distance. The stockholders include Carey Shaw of Houston; French Simpson and Lyle Paul of Hallettsville, and Frank Hardy of El Campo, Texas, besides E. J. Coughlin of Topeka, Kans.; Lewis H. Seurlock of Kansas City, and Emil Reinbold of Vienna, Austria. Provident City is a new townsite.

Rayville, La.—T. C. Mengel of Louisville, Ky., will, it is reported, establish the Richland Lumber Co. in Rayville, and will build three and one-half miles of railroad to haul lumber to the mill.

Rolla, Mo.—The Missouri Inland & Southern Railroad Co. has been chartered with \$400,000 capital to build a line from Rolla to Licking, Mo., 40 miles. The directors are

Albert Campbell and C. H. Evers of Spokane, Wash.; A. E. Young, E. C. Comstock, A. H. Bradford and D. M. Meaders of Licking, Mo.

Rome, Ga.—The Manufacturers' Record is informed that the Rome & Northern Railway Co. has let contract to Burke & Joseph of Cape Girardeau, Mo., to build its line from Rome north to Gore, Ga., 18 miles, and thence southeast and northwest, parallel with the Taylor Ridge Mountains, about 50 miles. The R. G. Peters Salt & Lumber Co. is back of the road, and construction will be in charge of J. B. Richards, general superintendent for Burke & Joseph. The incorporators of the company are R. G. Peters, James R. Peters, Roy A. Nickerson, Richard H. Hoffman of Manistee, Mich., and H. H. Shackelton, John H. Rodgers, Joseph L. Bass, H. M. Smith, D. T. Haynes and W. S. McHenry, all of Rome, Ga.

San Antonio, Texas.—W. G. Van Vleck, Houston, Texas, vice-president and general manager of the Galveston, Harrisburg & San Antonio Railroad, is reported as saying that six miles of siding will be built at the new freight depot in San Antonio.

Savannah, Ga.—The Savannah & Southwestern Railway Co. has applied for a charter to build a line from Savannah to Fort Gaines, Ga., about 275 miles. The line will probably touch Clyde, Reidsville, Lumber City, Fitzgerald, Ashburn and Albany, Ga., besides other points. It is proposed to absorb 12 miles of line owned by the Perkins Lumber Co., between Hagan and Jennings, Ga. The incorporators are F. R. Durden and E. M. Frank of Savannah; W. T. Kicklighter of Bryan county; C. S. Grice, N. A. Thaggard, W. G. Warnell, G. W. DeLoach, D. M. Bradley, J. H. Perkins, W. C. Perkins, G. W. Smith, J. V. Kelly, S. T. Ellis, M. A. Smith and P. M. Anderson of Tattnall county.

Searcy, Ark.—Louis Lorch of Searcy is reported to be promoting a plan to build an electric railway from Searcy to Higginson, four miles, with a line two miles long in Searcy to Searchlight Park. W. M. Wheeler of Little Rock, Ark., is also reported interested. The Searchlight Power & Electric Co. is to be incorporated.

Shawnee, Okla.—The Shawnee Electric Railway Co. has been chartered with \$100,000 capital to build two lines of interurban railway—one from Shawnee via Prague and Okmulgee to Muskogee, 120 miles, and another from Shawnee to Oklahoma City, 40 miles—the first to cost \$3,000,000 and the latter \$1,000,000. Incorporators are C. T. Edwards, A. Hargraves, C. E. Easterwood, R. E. Pugh and W. S. Pendleton, all of Shawnee, Okla. They also chartered a construction company with \$10,000 capital.

Shelby, Mo.—Louis B. Heuck of Cape Girardeau, Mo., is reported as saying that he has purchased the Shelby County Railroad, between Shelby and Shelbyville, Mo., a distance of several miles. An extension may be built.

Temple, Texas.—Temple has named four directors for the proposed electric railway from Temple to Waco, thus: Charles M. Campbell, P. L. Downs, J. E. Ferguson and George E. Wilcox. Waco will name five directors. A company with \$25,000 capital will be formed.

STREET RAILWAYS

Brunswick, Ga.—Reported that construction will begin on the Brunswick Electric Street Railway within a month. F. D. M. Strachan is president. A dispatch from Atlanta says that application has been made to charter the road as the City & Suburban Railway of Brunswick; line to be about four miles long; capital \$50,000. The organizers are F. D. M. Strachan, F. D. Alwen, E. F. Carey, C. Dunning, A. Fending, R. E. Briesenick and H. F. Dunwoody of Brunswick, and George P. Walker, George F. Armstrong and H. G. Strachan of Savannah.

Dallas, Texas.—The Dallas Street Railway Co. will, it is announced, rebuild its tracks on East Elm street from Walton street to Carroll street.

Birmingham, Ala.—The Birmingham & Edgewood Electric Co. has applied for a franchise to build the proposed line to Red Mountain, 3½ miles. G. T. Brazelton and others are interested.

Grafton, W. Va.—Survey is reported begun by the Grafton Traction Co. for its extension on the west side. F. M. Foust and J. E. Henshel of Connellsburg, Pa., are the engineers.

Hinton, W. Va.—The Hinton Street Car & Transportation Co. of Hinton, W. Va., has been chartered to build a line from Hinton via Union, Avis and Red Sulphur Springs to connect with the Norfolk & Western Railway and the Virginian Railway at the mouth of the East River, in Mercer county, West Virginia;

capital \$50,000. James T. McCreery, W. H. Sawyer, H. Ewart, O. O. Cooper and J. H. Miller, all of Hinton, W. Va., are the incorporators.

Lynchburg, Va.—The city authorities have granted the franchise requested by the People's Improvement Co. for a street railway extension to Fairview Heights. R. J. Hughes is president.

New Orleans, La.—The New Orleans Railway & Lighting Co. contemplates building an extension of the Dauphine line. Hugh McClosey is president.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air Compressor.—See "Water-works Equipment."

Arm and Pin Machinery.—Kirby Lann, 70 Commerce St., Aberdeen, Miss., wants prices on machinery for manufacturing telegraph pins and arms; does not want power.

Art Glass.—See "Building Materials."

Boilers.—See "Water-works Equipment."

Automobile Supplies.—Jenkins-Caraway Company, Clarendon, Texas, wants data regarding automobile supplies, parts, etc.

Boiler.—J. J. Thompson, secretary Union Gin Co., Celeste, Texas, wants 95-horse-power boiler for five-stand 70-saw cotton gin.

Boilers.—O. R. Whitney, 39-41 Cortlandt St., New York, wants 1500-horse-power B. & W. boilers in 500-horse-power units; second-hand condition; good for 150 pounds working pressure; send full detailed information by first mail.

Boilers.—See "Engine and Boilers."

Boilers.—J. H. Macleary, Suffolk, Va., in market for three 150-horse-power return tubular boilers, with front and fittings complete; dealers' price, condition, location, etc.

Boilers.—See "Water-works, etc."

Box Machinery. — See "Clothes-pin Machinery."

Brick Machinery.—Seguin Vitrified Paving & Face Brick Co., Seguin, Texas, will need electric equipment, drier, clay machinery, 300-horse-power boilers and engine, etc., for daily output 40,000 vitrified paving bricks.

Brickmaking Machinery.—C. Swanson, Kingsland, Ga., wants prices on new and second-hand brick machinery.

Bricks. — M. B. Neese, Huntsville, Ala., wants addresses of manufacturers of fire bricks.

Bridge Construction.—Hugh McGrattan, chairman bridge committee, Weatherford, Texas, will receive bids until June 10 for construction of 100-foot concrete bridge; certified check for \$250; plans and specifications on file with N. Werenskiold, consulting engineer, Dallas, Texas, Cockrell Bldg., and in office of C. W. Camp, City Engineer, Weatherford.

Bridge Construction.—See "Macadamizing."

Building Iron.—R. L. Holden, Rotan, Texas, wants 10-inch 30-pound I beams, 10-inch 30-pound channels and 6x6½ angles.

Building Materials.—J. R. Randolph, Ruston Brick Works, Ruston, La., is in market for lime, cement, plaster, two 12-inch eye-beams 24 feet long, mill work, sash, doors and lumber.

Building Materials.—Salmon & Wilson, Pontotoc, Miss., want prices on brick, cement and lime.

Building Material.—R. J. Parks, 818 13th St., Augusta, Ga., wants prices on dressed lumber, doors, windows, frames, mantels, etc.

Building Materials.—M. E. Church South,

J. F. Woodward, secretary building committee, Newport, Tenn., wants concrete blocks, common and face brick, steel ceiling, art-glass windows, slate and metal shingles for roof, rough and finishing lumber, cement and lime, for \$10,000 edifice.

Burlap.—Richmond Bag Co., 1110 East Cary

St., Richmond, Va., wants two or three car loads second hand burlap.

Cars, etc.—F. C. Moon, People's National Bank Bldg., Lynchburg, Va., wants to correspond with manufacturers of electrical street cars and car fenders.

Cars.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., wants several freight cars.

Cars.—A. V. Kaiser & Co., Philadelphia, Pa., in market for low-priced passenger cars, standard gauge, including two for workman's train, to have longitudinal seats.

Cars.—O. R. Whitney, 39 Cortlandt St., New York, wants 25 3 or 4-yard two-way 36-inch gauge dump cars, in good second-hand condition; prompt delivery.

Castings, etc.—Bids will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until June 29 for furnishing castings and structural material to be embedded in masonry for all mitering lock gates; cylindrical gate, automatic stop and check valves and accessories, pipes and fittings, ladder rungs, etc. Blanks and general information relating to circular No. 513 may be obtained at above office or office of assistant purchasing agents.

24 State street, New York; 316 Hibernal Bank Building, New Orleans; 1086 North Point street, San Francisco, Cal.; also from U. S. Engineer Office in following cities: Seattle, Wash.; Los Angeles, Cal.; Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill., and Chamber of Commerce and Board of Trade, Tacoma, Wash.; F. C. Boggs, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Cleaning (Paper) Machinery.—See "Paper-handling Machinery."

Clothes-pin Machinery.—Moore Lumber Co., Old Fort, N. C., wants prices on machinery for manufacturing clothes-pins, butter trays and lard trays.

Clothes-pin Machinery.—J. H. Whyte, care Chamber of Commerce, Astoria, Ore., wants data on machinery to manufacture clothes-pins, tool handles, door bumpers, turn-down boxes with lids, etc.

Clothing Cabinets.—Marcus & Co., 408 West Broad St., Savannah, Ga., want trolley cabinets for displaying clothing.

Coal Cars.—W. H. Durant, treasurer Empire Coal Co., 716 Brown-Marx Bldg., Birmingham, Ala., wants six second-hand hopper-bottom coal cars; 80,000 to 100,000 pounds capacity.

Concrete Blocks.—See "Building Materials."

Concrete Mixer.—J. O. Polhemus, 410 West 19th St., Austin, Texas, wants prices on concrete mixer.

Cotton Gin.—R. L. Fordtran, Industry, Texas, will open bids July 15 for two 70-saw gin and pneumatic air distribution system; daily capacity, 20 bales cotton.

Cotton Gin.—Cheairs Cash Store, Tillar, Ark., will probably want cotton gin.

Cotton Gins and Compreses.—Cheairs Cash Store, Tillar, Ark., will probably install cotton gin for next season. (See "Machinery Wanted.")

Cotton Ties.—T. W. Newborn & Co., Kinston, N. C., want addresses of manufacturers of cotton ties.

Crates.—W. R. Miller & Sons, Bonifay, Fla., want vegetable crates.

Derrick.—Hobbs-Ives Equipment & Machinery Co., Inc., Norfolk, Va., wants second-hand derrick with bull wheel and ¾-yard or 1-yard clamshell bucket.

Desks, etc.—I. T. Nickell, School District 131, Lookeba, Okla., wants desks and other school furniture.

Dies and Presses.—Initial Company, Roy W. Sexton, president, Wytheville, Va., wants dies and presses for making papier-mache initials and embroidery forms.

Door Openers.—A. W. Sherwood, R. F. D. No. 4, McDonough, Ga., will want door openers.

Dredging.—See "Wharf Construction."

Drill.—See "Brick Machinery."

Electric Conduits and Wiring.—See Gulfport, Miss., under "Government and State Buildings."

Electric Dumb Waiter.—U. S. Department of Agriculture, James Wilson, Secretary, Washington, D. C. Sealed proposals will be received at office of disbursing clerk until June 4 for furnishing and installing electric dumb waiter; specifications and full information furnished on application to disbursing clerk; bids must be sealed and addressed to Secretary of Agriculture, in accordance with instructions on schedule.

Electric Equipment.—See "Brick Machinery."

Electric-light Plant.—Basic City, Va., C. M. Page, Treasurer, will open bids June 17 for construction of hydro-electric-light plant. (Lately mentioned.)

Electric Lights.—Petworth M. E. Church, Geo. C. Hough, chairman building committee, 700 Randolph St., Washington, D. C., in market for bell electric lights for \$20,000 church.

Electric Motors.—Carolina Electrical Co., 110 Fayetteville St., Raleigh, N. C., wants prices on 10-horse-power direct-current motors, 110 volts.

Electric Wiring.—See "Schools," Winthrop College, Rock Hill, S. C.

Electrical Machinery.—J. Y. Clark, president Leesburg Ice Co., Leesburg, Fla., will want one or two direct-connected units, 35 or 50 kilowatts, 2300 volts.

Electrical Machinery.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., in market for dynamos and gasoline engines.

Electrical Machinery.—W. E. Brunson, Sumter, S. C., wants second-hand dynamo for 100 lights; direct or alternating.

Electrical Machinery.—Sealed proposals will be received until June 7 for furnishing and delivering three motor sets; for furnishing and delivering nine switchboards, and for furnishing all necessary labor and materials for installing the above-named generator sets and switchboards, and for wiring, equipping with electricity and making alterations, etc., as specified in Eastern, Western and Central High Schools. Blank forms of proposals, specifications and all necessary information may be obtained on application to Property Clerk, D. C. District Bldg.; Henry B. F. Macfarland, Henry L. West, W. V. Judson, Commissioners, Washington, D. C.

Electrical Supplies.—A. W. Sherwood, R. F. D. No. 4, McDonough, Ga., will want lightning rods, burglar alarms, dry batteries, lightning arresters, switches, electric wire, etc.

Engine.—Levert Lumber & Shingle Co., Plaquemine, La., wants second-hand 21x48-inch Corliss engine.

Engine.—J. O. Polhemus, 420 West 19th St., Austin, Texas, wants prices on engine.

Engines.—See "Heating Plant."

Engine and Boilers.—Seguin Vitrified & Face Brick Co., Seguin, Texas, will need 300-horse-power boilers and engine. (See "Brick Machinery.")

Engines.—La Feria Mutual Canal Co., Brownsville, Texas, will buy compound engines. (See "Pumping Equipment.")

Engines.—J. J. Thompson, secretary Union Gin Co., Celeste, Texas, wants 75-horse-power engine for five-stand 30-saw cotton gin.

Facade Wall.—Sealed proposals will be received until June 14 for construction of facade wall; specifications, forms of proposal and necessary information may be obtained from Chief Clerk, Engineer Department, Room 427, District Bldg., Washington, D. C.; Henry B. F. Macfarland, Henry L. West, Wm. V. Judson, Commissioners, D. C.

Fans.—Charles G. Arnold, Lafollette, Tenn., wants to correspond with manufacturers of belt-driven ceiling fans.

Fenders.—F. C. Moon, People's National Bank Bldg., Lynchburg, Va., wants to correspond with manufacturers of car fenders.

Flooring.—R. L. Moss Sr., Athens, Ga., in market for hardwood flooring.

Flour Mill.—Model Mill Co., J. W. King, president, Bristol, Tenn., will open proposal in 30 days for flour mill; 400-barrel daily capacity.

Foundry Equipment.—Leaksville Spray Foundry Co., Leaksville, N. C., in market for foundry equipment for stores, etc.

Foundry Plants.—J. M. Maynard, Hickory, N. C., wants to correspond with operators of foundry plants relative to arranging for manufacture of machine for babbittting boxes and pulleys.

Furniture.—See "Seating."

Gasoline Engine.—W. N. Gann, Ryan, Texas, wants gasoline engine to grind or chop corn.

Gasoline Engines.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., in market for gasoline engines.

Generator.—See "Heating Plant."

Glass.—Petworth M. E. Church, Geo. C. Hough, chairman building committee, 700 Randolph St., Washington, D. C., in market for leaded glass for \$20,000 church.

Glass Packages.—C. E. Chambers, St. Petersburg, Fla., wants to correspond with manufacturers of glass packages for jams, jellies, etc.

Gravel.—South Atlantic Coal Co., 212 Gfr-

mania Bank, Savannah, Ga., wants washed gravel for concrete work; schooner lots from Baltimore, New York or other ports.

Gravel Work.—Turnpike Board (D. P. Prescott, secretary and superintendent, and M. W. Fletcher, clerk), Memphis, Tenn., will receive bids until May 28 for mining, hauling and spreading gravel according to specifications and conditions for following work: Easley avenue, one-half mile; extension of Hyndman Ferry road, one mile; Fisherville and Eads, two and one-half miles; Collierville and Byhalia, two miles; Forest Hill and Irene, one mile; White Haven and Tipton, one mile; Bleak and Germantown, two miles; Raines avenue, one mile; Hill avenue, three-quarters of mile; extension Memphis and Cuba road, one mile, and Dunn avenue, two miles.

Handle Machinery.—See "Clothes-pin Machinery."

Heating.—See item of Winthrop College, Rock Hill, S. C., under "Schools."

Heating.—J. F. Rowe, Hampton, Va., wants heating apparatus for \$12,000 residence.

Heating and Plumbing Equipment.—Salmon & Wilson, Pontotoc, Miss., want prices on heating and plumbing equipment for hotel.

Heating and Ventilating Plant.—W. B. Adams, chairman School Building Committee, Elberton, Ga., wants heating and ventilating plant for \$35,000 school.

Heating Apparatus.—See Gulfport, Miss., under "Government and State Buildings."

Heating Plant.—W. A. Mauney, Kings Mountain, N. C., wants bids on heating plant for \$15,000 school.

Heating Plant.—U. S. Department of Agriculture, James Wilson, Secretary, Washington, D. C., will open proposals June 10 for engine, generator, switchboard, labor and materials in extension of heating system in buildings of weather bureau, 24th and M streets, in accordance with plans and specifications obtainable from chief U. S. Weather Bureau.

Heating Plant.—Ozark, Mo., Robertson Bros., wants prices on heating plant for \$6000 store building.

Holst.—J. O. Polhemus, 410 West 19th St., Austin, Texas, wants prices on holst.

Ice Plant.—Newport Bottling Works, Newport, Tenn., wants data and estimates on ice plant.

Ice Plant.—P. F. Holley, Blountstown, Fla., wants data on small ice plant.

Insulator-pin Machinery.—Charles G. Arnold, Lafollette, Tenn., wants to correspond with manufacturers of insulator-pin machinery.

Jail Work.—L. A. Galyon, Knoxville, Tenn., wants cages and opening and locking devices for jail.

Lathes.—Charles G. Arnold, Lafollette, Tenn., wants to correspond with manufacturers of engine lathes of 16-inch swing and under.

Levee Construction.—U. S. Engineer office, Room 20, Custom-house, Memphis, Tenn. Sealed proposals for 475,000 cubic yards of levee work in upper and lower St. Francis levee districts will be received until June 21; information on request; M. L. Walker, Major, Engineers.

Locomotive.—J. H. Macleary, Suffolk, Va., wants dealer's price, condition, location, etc., on standard-gauge mogul or 10 wheel locomotive, with low wheels, for logging.

Locomotives.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., wants several locomotives.

Locomotive.—O. R. Whitney, 39 Cortland St., New York, wants 30-inch-gauge second-hand saddle-tank locomotive for export; first-class condition; send detailed specifications and prices by first mail.

Lumber.—See "Building Materials."

Macadamizing.—John D. Spears, Mayor, Scottsville, Ky., will receive bids until May 29 for grading and macadamizing streets and public square and for building certain bridges. Specifications, plans and profiles may be seen at office of town clerk at Scottsville or of chief engineer, John Wilkes, No 2 Berry Block, Nashville, Tenn.

Machinery Tools.—See "Shear."

Machinery Generally.—Southern Equipment Co., 3521 27th St., North Birmingham, Ala., wants to correspond with manufacturers of machinery and mechanical supplies relative to representation.

Mantels.—J. F. Rowe, Hampton, Va., wants mantels for \$12,000 residence.

Meal Mill.—Model Mill Co., J. W. King, Bristol, Va.-Tenn., will open proposals in 30 days for meal mill; capacity, 2000 barrels daily.

Merry-go-Round.—J. P. Stedman, Oxford, N. C., wants merry-go-round.

Metal Stampings.—W. L. Goodhart, Lebanon, Tenn., wants to let contract for metal stampings not heavier than iron buckets, tubs, etc.

Packing Machinery.—See "Paper-handling Machinery."

Paper and Pulp Machinery.—Jacob Ormedred, 1504 Prairie Ave., Houston, Texas, wants to correspond with makers of machinery for manufacturing pulp from rice straw and paper.

Paper-handling Machinery.—City Waste Paper Co., 402 Lincoln Bldg., Louisville, Ky., will want machinery for handling, grading, cleaning and packing waste paper.

Paper-Mache.—Initial Company, Roy W. Sexton, president, Wytheville, Va., wants addresses of manufacturers of paper-mache stock in sheet form.

Paving.—Sealed bids for street paving in Bradenton, Fla., will be opened June 25 in office of Bond Trustees; paving includes vitrified brick, macadamized and crushed stone and marl mixed; specifications may be had on application to A. J. Beck, secretary Bond Trustees.

Paving.—Office Board of Fire and Police Commissioners, Memphis, Tenn. Sealed bids will be received at office of the City Register until May 28 for paving Beale avenue from Orleans to Walnut street with Moran concrete pavement; specifications may be seen at office of City Engineer; certified check, \$250; James H. Malone, Mayor; Ennis M. Douglass, City Register.

Paving.—Bids will be received at Farmville, Va., until May 29 for 1200 square yards cobblestone paving and 4500 square yards granolithic sidewalks. Plans and specifications furnished on application, John R. Martin, chairman of street committee.

Paving.—Julian Smith, City Engineer, Selma, Ala., will receive bids until June 4 for paving portion of Washington and Alabama streets with brick, asphalt and granitoid (amounting to about 10,000 square yards) on five-inch concrete foundation, and to construct necessary granite curb, combined curb and gutters, pipe drainage, inlets, manholes, etc. Specifications may be obtained and plans examined at office of City Engineer.

Paving.—City of Fulton, Mo., will receive bids until June 3 for 7600 square yards macadam paving and 4600 feet granitoid curb and gutter, including 4000 cubic yards excavation; specifications and other information on request; P. D. Thurmond, City Engineer.

Paving.—J. G. Sutton, City Secretary, Beaumont, Texas, will receive bids until June 1 for 20,000 square yards street paving; vitrified brick on asphalt paving, and concrete curbing as specified; blank proposals forms furnished by C. L. Scherer, City Engineer; plans and specifications on file in his office, and specifications will be mailed on request; certified check, \$300.

Paving.—Highways Commissioners of Baltimore County, E. Stanton Bosley, secretary, Towson, Md., will receive bids until June 3 for improving Park Heights avenue between Baltimore city and Worthington Valley; proposals to be made on forms furnished by State Geological Survey Commission, obtained through its office in Baltimore; work includes repairing and treating with pitch compound of about eight miles of road, according to plans and specifications on file at office of Highway Commission, Towson; certified check, \$300.

Paving.—Bids will be received at office of E. B. Cline, City Auditor, Tulsa, Okla., until May 31 for furnishing materials and improving streets in Improvement Districts 18 to 26, inclusive; plans and specifications by City Engineer, and are on file in his office; certified check for 5 per cent. of bid.

Pews.—Petworth M. E. Church, Geo. C. Hough, chairman building committee, 700 Randolph St., Washington, D. C., in market for pews for \$20,000 church.

Plumbing.—See "Schools," Winthrop College, Rock Hill, S. C.

Plumbing.—J. F. Rowe, Hampton, Va., wants plumbing for \$12,000 residence.

Plumbing and Gasplining.—See Gulfport, Miss., under "Government and State Buildings."

Pottery.—M. B. Neese, Huntsville, Ala., wants addresses of pottery manufacturers.

Printing Machinery.—P. Bergasse, 5 Rue Gretry, Paris, France, wants printing machinery.

Printing Machine.—Fyans, Fraser & Blackway Company, Fall River, Mass., wants printing machine; five to eight colors; wide cylinder; 40 to 42 inches.

Pulleys.—See "Sawmill."

Pump.—J. Y. Clark, president Leesburg Ice Co., Leesburg, Fla., will want electric pumping equipment.

Pump.—City water-works, A. F. Tilley, superintendent, Clarksville, Tenn., wants vertical pump; 1,000,000 gallons or more capacity.

Pumping Equipment.—La Feria Mutual Canal Co., Brownsville, Texas, offers specifications for two pumping units of 35,000 gallons each, complete with compound engines and centrifugal pumps; to be delivered and erected on or about October 1.

Pumps.—See "Water-works Equipment."

Pumps.—See "Water-works, etc."

Pumps.—See "Steam Radiators, etc."

Railroad Ties.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., wants 150 cedar or pine ties.

Rails.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., wants 4500 tons 70-pound relaying steel.

Rails, etc.—W. T. Pitts, Indianapolis, Ind., wants delivered price on 520 feet 50-pound re-laying rails, two switch points, low switch stand complete, No. 9 frog and Ellis bumping post.

Refrigerating.—See "Schools," Winthrop College, Rock Hill, S. C.

Road Construction.—Warren County Turnpike Commissioners, J. C. Biles, secretary, McMinnville, Tenn., will receive bids until June 3 for construction of from 20 to 65 miles of macadam roads.

Road Construction.—Bids will be received at office of P. St. J. Wilson, State Highway Commissioner, Richmond, Va., until June 5 for construction of 1½ miles of macadam road in Montgomery county near Blacksburg, Va.; plans and specifications on file at office and at Clerk's office at Christiansburg, Va.; specifications furnished on application to above office; certified check for \$250; engineer will be at Cambria Hotel May 29 to go over work with prospective bidders.

Road Construction.—Office of State Highway Commission, Richmond, Va. Bids will be received until June 1 for construction of macadam roads as follows: Five miles in Wythe county, near Wytheville; 6½ miles in Tazewell, and 4 miles in Wise county; engineer will be at Wytheville May 25, at Tazewell Courthouse May 26, and at St. Charles Hotel, Norton, Wise county, May 27, to go over work with prospective bidders; plans and specifications may be seen at clerk's office of the several counties or at above office; specifications furnished upon application to above office; certified check for \$350; P. S. J. Wilson, State Highway Commissioner.

Road Construction.—Office of State Highway Commission, Richmond, Va. Bids will be received until June 1 for construction of two and one-half miles of macadam road in Bedford county at Bedford City. Plans and specifications on file at above office and at clerk's office in Bedford City. Specifications furnished on application to above office; certified check for \$200; engineer will be at Bedford City to go over ground with prospective bidders on May 24. P. St. J. Wilson, State Highway Commissioner.

Roofing.—Atlantic & Western Railroad, H. P. Edwards, superintendent, Sanford, N. C., wants prices on roofing for freight depot at Broadway, N. C.

Roofing.—M. E. Church South, J. F. Woodward, secretary building committee, New Port, Tenn., wants slate and metal shingles for roof.

Sawmill.—Livingston Ice Co., Seneca, S. C., wants swinging cut-off saw frame with 30-inch saw and pulleys.

Sawmill Machinery.—Charles G. Arnold, Lafollette, Tenn., wants to correspond with manufacturers of machinery for utilizing sawmill refuse or small timber.

Saws.—Levert Lumber & Shingle Co., Plaquemine, La., wants gang and slab saws.

Scales.—J. S. Ball and J. L. Abbott, Danville, Va., want scales for \$3500 tobacco warehouse.

School Furniture.—See "Seating."

Seating.—H. A. M. Smith, chairman building committee, Charleston, S. C., will open bids June 7 for school seating and furniture, including 720 desks, 900 auditorium seats and furniture for one library, one principal's and two teachers' rooms; specifications can be obtained from Mr. Smith or J. F. Leitner, architect, Wilmington, N. C.

Sewer Construction.—Commissioners of Sewerage (W. C. Nones, chairman, and Chas. P. Weaver, secretary-treasurer, Equitable Bldg., Louisville, Ky., will receive bids until June 4 for construction of sewer known as section "B" of northeastern sanitary

trunk sewer, contract No. 41 of comprehensive system of sewerage; work will consist mainly of building concrete sewer 220 feet long, sizes 30 inches and 24 inches in diameter and including about 425 cubic yards of concrete and about 3000 pounds of reinforcing steel. Plans and specifications may be seen at office of Commissioners and of Harrison P. Eddy, consulting engineer, 14 Beacon St., Boston, Mass. Certified check for 7 per cent. of bid, or "bidder's bond" as described in form of proposal. J. B. F. Breed, chief engineer.

Sewer Pipe and Fittings.—See "Water-works, etc."

Shear.—Henry Vogt Machine Co., 10th and Ormsby Sts., Louisville, Ky., wants belted shear, to take up to 1½x6-inch steel or iron; company has electric motor.

Sheet Steel.—A. W. Sherwood, R. F. D. No. 4, McDonough, Ga., will want sheet steel.

Shingle Dealers.—Judson Thomas & Son, Broadway, N. C., want addresses of Baltimore shingle dealers.

Shingle Mill.—Thomas & Chandler, Broadway, N. C., will open proposals June 1 for equipment for daily capacity 20,000 shingles.

Skylights.—J. S. Ball and J. L. Abbott, Franklin, Va., want skylights for \$3500 tobacco warehouse.

Steam Radiators, etc.—Guy L. Bunch, 508 South Harrington St., Raleigh, N. C., wants steam radiators, 3500 square feet or more; radiator valves and air cocks; pipe fittings for steam, 125-pound test; black iron or steel pipe from three-quarter to four inches, 125 pounds working pressure; gate and globe valves; receiver and return pump; reducing valve four inches, 125 pounds boiler pressure to 15 pounds reduced pressure; quote prices f. o. b. and freight rate to Atlanta.

Steel.—Jenkins-Caraway Company, Clarendon, Texas, wants data regarding high-grade steel for farm machinery and tools.

Steel Ceilings.—See "Building Materials."

Tanks and Towers.—J. Y. Clark, president Leesburg Ice Co., Leesburg, Fla., will want 60,000-gallon steel tank and tower 100 feet high and 10,000-gallon steel tank and tower 40 feet high; may want three 10,000-gallon tanks.

Steel Work.—C. F. Gordon, County Supervisor, Yorkville, S. C., will receive proposals, accompanied by plans and specifications, until June 10 and award contract for eight new four-bunk chrome steel cells, with corridor, closet, tub, shop sink, etc., for York county jail; N. Gaillard Walker, engineer in charge, Rock Hill, S. C.

Ties.—Franklin Construction Co., Frisco Bldg., St. Louis, Mo., wants 150,000 cedar or pine ties.

Ties.—See "Railroad Ties."

Tile Molds.—John E. Bowen, 191 Sunset Ave., Atlanta, Ga., wants tile molds of two shapes—square and hexagonal.

Tray Machinery.—See "Clothes-pin Machinery."

Trucks.—J. S. Ball and J. L. Abbott, Danville, Va., want trucks for \$3500 tobacco warehouse.

Valves.—See "Steam Radiators, etc."

Viauduct Construction.—Board of Public Works, John W. Fleckenstein, chairman, Knoxville, Tenn., will receive bids until June 10 for construction of reinforced concrete viaduct on Asylum avenue; S. D. Newton, City Engineer.

Water Plant.—T. Belcher, Big Rock, Va., will receive bids until June 5 for installation of water plant at Grundy, Va. Plans and specifications can be seen at clerk's office of Buchanan county, at Grundy.

Water-power Machinery.—Charles G. Arnold, Lafollette, Tenn., wants to correspond with manufacturers of water motors of two horse-power and over and turbines for small powers.

Water-works.—City of Appalachia, Va., invites estimates on water system; will issue \$50,000 of bonds. Address The Mayor.

Water-works.—Bids will be received by chairman of Town Board, Okemah, Okla., until June 15 for purchase by city of pipe, fittings, hydrants and valves, together with machinery necessary for construction of a water plant. Specifications can be had by addressing O'Neill Engineering Co., Dallas, Texas.

Water-works Equipment.—Princeton (W. Va.) Water-works Co. wants boilers, pumps, air compressor, pipe, hydrants, etc.; F. R. Van Antwerp, 200 Bond Bldg., Washington, D. C., is engineer in charge; after May 31 address him at Princeton.

Water-works, etc.—Bids will be received by Hartshorne, Okla., until June 7 for purchase by city of cast-iron pipe, standard fire hydrants, water gate valves, pumps and boilers required in construction of system of

water-works; also for purchase of sewer pipe and fittings for system of sewers; specifications can be had by addressing O'Neill Engineering Co., Dallas, Texas.

Wharf Construction.—Bids will be received at office of Commissioners D. C. (Henry B. F. Macfarland, Henry L. West and William V. Judson), Washington, until June 12 for construction of wharf and bulkheads, including dredging, at District Wharf, 7th street channel. Forms of proposal, specifications and information may be obtained from Chief Clerk, Engineer Department, Room 427 District Building.

Windows.—J. S. Ball and J. L. Abbott, Danville, Va., want windows for \$3500 tobacco warehouse.

Wood Pipe.—H. W. Townsend, general

manager Alpine Power Co., Alpine, Texas, wants information on wood pipe for water mains.

Wood-preservatives Machinery.—Charles G. Arnold, Lafollette, Tenn., wants to correspond with makers of machinery for manufacture of wood preservatives from stumps and refuse lumber.

Woodworking Machinery.—Jenkins-Caraway Company, Clarendon, Texas, wants data regarding universal woodworkers.

Woodworking Machinery.—See "Clothes-pin Machinery."

Woodworking Machinery.—See "Arm and Pin Machinery."

Woodworking Machinery.—See "Insulator-pin Machinery."

INDUSTRIAL NEWS OF INTEREST

Texas Town Wants Factories.

One of the growing towns of Texas is Merrimac, which is said to be an advantageous location for all kinds of factories. The Merrimac Townsite Co. is exerting its efforts to promote the industrial progress of Merrimac, and will supply information as to its resources.

Has Purchased Additional Plants.

The Manufacturers' Record is advised that the Albany Foundry and Machine Works of Albany, Ga., has sold its interests in that plant to the Georgia Locomotive Co. of Atlanta, Ga., which has also purchased the Bacon Equipment Co. plant operated by the Albany company for the past 13 months.

Turbine Pump Literature.

New turbine pump literature is comprised in bulletins Nos. 1, 2 and 3 issued by the Atlantic Hydraulic Machinery Co. These bulletins refer respectively to standard turbine pumps, multi-stage turbine pumps and high-speed low-lift turbine pumps. They are illustrated. Address the company at 1023 Drexel Bldg., Philadelphia.

Norfolk Water-Front Property.

An unimproved water-front property in Norfolk city limits is offered for sale. It is opposite the Southern Railway piers and adjoining the Virginian Railway coal pier. The land is located 2000 feet on the Elizabeth River and has a depth of 1200 feet. Investigation of this investment opportunity is invited by W. W. Robertson of Norfolk, Va.

Recent L. S. Montgomery Contracts.

Some good contracts have been received recently by the L. S. Montgomery Company, 826 Empire Bldg., Atlanta, Ga. They included Federal Electric clusters, outlet boxes, covers, panel-boards and switches for the Auditorium Armory at Atlanta. The Montgomery Company sold the above electrical supplies through the Carter-Gillespie Electric Co., contractor for the armory.

Wants to Represent Manufacturers.

Manufacturers of railway equipment, saw-mills, mining and quarrying machinery, contractors' tools, etc., are invited to correspond with the Southern Equipment Co., 3521 27th St., North Birmingham, Ala. This company wants to represent manufacturers. It has been organized with W. J. Alford as manager, and will sell machinery and mechanical supplies of all kinds.

Machine for Babbitt Boxes and Pulleys.

The Manufacturers' Record is informed that J. M. Maynard of Hickory, N. C., has invented a machine for babbitt boxes and pulleys. This machine is planned to hold any ordinary-size pulley or box, it is self-registering, works with accuracy, and its standard size is 12x20 inches. Mr. Maynard is desirous of arranging for the manufacture of his machine and invites correspondence from manufacturers who may be interested in equipment of this character.

Has Completed Many Wells.

Many wells have been drilled in the South by the Hughes Specialty Well Drilling Co. This company's recent contracts included a series of 35 wells, ranging from 10 to 16 inches in diameter, for various phosphate mining companies in Florida. It has offices at 96 Ashley avenue, Charleston, S. C., and in the Drane Building, Lakeland, Fla. William E. Hughes is president and manager and E. H. Jordan is secretary of this well-drilling company.

Has Remodeled Its Plant.

The Chickamauga Cement Co., W. P. D. Moross, treasurer and general manager, Chattanooga, Tenn., has completed the re-

modeling of its cement plant at Rossville, Ga. (a Chattanooga suburb), substituting tile mills for buhrs in the finishing department and making other changes in connection therewith. The completion of these improvements provides the company with one of the most modern plants for the manufacture of hydraulic cement in the country, besides materially improving the product.

Installing Electric Motors.

The Crocker-Wheeler Company, Ampere, N. J., reports the following recent installations of electrical machinery from its shops: Bonnie Cotton Mills, Kings Mountain, N. C., 32 squirrel-cage induction motors, aggregating 2200 horse-power, with accompanying panel, etc., and two 10-kilowatt 2200 110-volt transformers; Youngstown (Ohio) Sheet & Tube Co., 500-horse-power synchronous motor, operating on a three-phase 25-cycle circuit at the high potential of 6000 volts, driving a centrifugal pump; Indiana Steel Co., Gary, Ind., 21 Form W motors of 655 horse-power, to operate cranes on a 220-volt direct-current circuit.

Successful Chattanooga Enterprise Expanding.

One of the successful enterprises of Chattanooga, Tenn., is the Chattanooga Iron & Wire Works, manufacturing ornamental and structural iron and steel work and wire work. This company has arranged to enlarge its operations, and will at once establish a department for the manufacture of sheet-metal work, later adding a foundry. It will increase capital stock from \$10,000 to \$25,000, and R. C. Lieb (for 14 years with the Chattanooga Roofing & Foundry Co.) has become associated with the company as president and general manager. Bruce Guthrie is vice-president and J. D. Wilkins secretary.

A Bartlett & Snow Announcement.

Owing to increasing trade in the East, the C. O. Bartlett & Snow Company of Cleveland, Ohio, has established an office at 50 Church street, New York, with H. H. Bighouse as chief engineer in charge. He will give personal attention to inquiries for elevating, conveying and handling machinery, mechanical drying equipment, etc. The company reports the following recent orders: Low-pressure brick drier of 30,000 daily capacity for Geo. H. Clippert & Bro. Brick Co., Detroit, Mich.; outfit for general disintegrating, elevating, screening and washing for Baldwin Bros., Cleveland, Ohio, and skip hoist for Benson Mines Co., Benson Mines, N. Y.

Gas-Engine Improvements.

The Wisconsin Engine Co., Corliss, Wis., reports increasing orders for both its Corliss engines and its complete expansion gas engines. Recently a gas-engine contract was received from the Bartlesville (Okla.) Electric Light & Power Co., and covers two engines of the horizontal tandem double-acting type, each to develop 600 H. P. and to be direct connected to a 60-cycle alternating-current generator. These generators are to operate in parallel, and very close regulation has been guaranteed. The complete expansion principle embodies the expansion of the burning charge to a very low terminal temperature and pressure, with the consequent bettering of the working conditions, simplifying the lubrication feature and decreasing the gas consumption by about 20 per cent.

Contracts for Water Softeners.

The Mishawaka (Ind.) Woolen Manufacturing Co. and the Faatz-Reynolds Felting Co., Lestershire, N. Y., have placed orders with the Dodge Manufacturing Co. of Mishawaka for Eureka water softeners. The machine for the Mishawaka Company will have a capacity of 30,000 gallons per hour, while that specified for the Lestershire plant

will be for 12,000 gallons. The Dodge Company has started work on an automatically controlled 50,000-gallon steel storage tank to be erected on a 20-foot steel tower to be used in connection with the Faatz-Reynolds water softener. The treated water from both of these machines will be used for boiler feeding and textile manufacturing. The Dodge plant is also working on a number of smaller Eureka water softeners ranging in capacity from 1000 to 4000 gallons per hour.

Shipments of Drilling Equipments.

The Cyclone Drill Co., Orrville, Ohio, has made the following shipments during the past few days: Two complete core-drilling outfits for E. C. Hargrave, Port Arthur, Canada; blast-hole drill to Rio Tinto Co., for railroad construction in Spain; prospecting machine to W. H. C. Downes, for use in Western Australia; prospecting outfit for Santa Rita Co. in New Mexico, third machine purchased by company; two prospecting outfits to Rockdale Iron Co., for prospecting iron ore in Tennessee; well-drilling machine and equipment to G. A. Amsinek & Co., Columbia, S. A.; also many local shipments covering regular types of machines and gasoline traction outfit. The company reports an increasing number of inquiries for various kinds of equipment, and that its factory is operating full time, with an increasing working force.

An Industrial and Terminal Proposition.

Norfolk, Portsmouth and Richmond bankers and capitalists have purchased valuable land opposite Newport News for development as an industrial and terminal location. They have acquired some 300 acres of high land at the mouth of the Nansemond River, on the lower harbor of Norfolk, fronting one and one-fourth miles on deep water, to which the Atlantic Coast Line has a branch railway. This property will be held for development, and the owners are now arranging to capitalize and hold it for the future demand, which they believe will undoubtedly result in a largely increased valuation. The land is on the south side of the harbor, from which direction all but one of the railroads terminating on Norfolk harbor approach. Investors are invited to investigate this opportunity by addressing the Jordan & Davis Company, the Norfolk National Bank or the National Bank of Commerce, Norfolk, Va. Among those interested are Caldwell Hardy, president of the Norfolk National Bank; Langhorne M. Williams of John L. Williams & Son, Richmond; Leigh R. Watts of the S. A. L. Portsmouth, Va., and various others equally well known.

The Southern States Supply Co.

While supplying the local demand yet gradually extending its sales in increasing volume to all the Southern States, and especially to North Carolina, South Carolina, Georgia and Florida, the Southern States Supply Co. of Columbia, S. C., contributes largely to the importance of Columbia as a jobbing center. Beginning with a local business seven years ago, the company furnishes an illustration of profitable expansion, and has only recently completed the sale of a carload of plumbing and building supplies to a Chattanooga contracting company. As modern sanitation is demanding the attention of progressive cotton-mill operators not only in the mill itself, but for the operatives, by virtue of direct and indirect benefits which will accrue from its installation, the company has anticipated a brisk demand for plumbing equipment of this character. The company has studied mill requirements and will furnish specifications and drawings and make recommendations on both new work and altering and modernizing old installations. It manufactures and sells plumbing and machinery supplies, tin plate, roofing, etc., and competes for large as well as small contracts. Among the company's recent contracts are those to supply fixtures for the Masonic Temple at Raleigh, N. C.; the Y. M. C. A. building and a sanitarium at Charlotte; hotels at Rockingham; schools at Midville and Mt. Vernon, Ga.; material for State buildings at Morganton, N. C., and several large cotton mills, in addition to much other work.

TRADE LITERATURE.

Reliance Tube Co.

Well known throughout the country as a manufacturer of charcoal iron and steel boiler tubes and pipe is the Reliance Tube Co., Ltd., of Brackenridge, Pa. This company announces its change of the Pittsburg office from 421 Wood street to the Renshaw Building.

For Perfect Concrete Mixing.

The subject of concrete is of vital interest to contractors and builders. The preparation of concrete necessitates the use of a mixer, and various inventors have exerted their efforts to perfect appliances for concrete mixing. Among such equipments is the Eclipse concrete mixer, which has been adopted by many well-known contractors, engineers and builders. This concrete mixer is manufactured by the Standard Scale & Supply Co., 50 South Canal St., Chicago; 243 Water St., Pittsburgh, and 136 Broadway, New York. The company says: "Among the mixer's new features are the large openings in drum and its low charging device, which eliminates a complicated charging elevator and the expense of an expert operator. The large opening enables one to see the mix from the time it is charged until it is discharged; also makes it accessible for cleaning. The material is dumped into low charging end and is carried into drum by blades in front, which extend in 8 to 10 inches, and material can be much higher than drum head without falling out; in fact, it can completely cover the plow, as the charging blades keep rolling the material back into the drum. The material is then thoroughly cut up and mixed by the plow in center of drum and the blades running at an angle across the drum in opposite directions. The concrete is then discharged by opening the discharge chute, which is operated by handle at either end of the drum. The operation of discharge door is semi-automatic, as it is necessary only to throw in desired direction, when a strong spring completes the movement and holds in position. The discharge is rapid and high so concrete can be loaded into barrows. By combination of low charging and high and rapid discharging, 75 complete and finished batches of concrete can be made each hour, an average of one batch each 45 seconds. This alone is a remarkable showing, and was demonstrated on street work in Chicago in a test with other machines. The whole outfit can be mounted on a truck and easily hauled or pulled by one horse from place to place, thus enabling a contractor to work on more than one contract at a time. Simplicity, durability and low cost of operating has put the Eclipse mixer in a class by itself. For a full description write for catalogue No. 26."

Important Pollock Furnace Construction.

Manufacturers interested in furnace construction are invited to address the William P. Pollock Company, Youngstown, Ohio, for a copy of its pamphlet illustrating by photographic views the new furnace of the Youngstown Steel Co. This furnace was recently completed by the Pollock Company, which makes a specialty of steel-plate construction for furnaces and similar plants.

For Users of Belting.

Users of belting should not fail to become acquainted with the contents of the new booklet published by the New Jersey Car Spring & Rubber Co. of Jersey City, N. J. The booklet illustrates and describes the rubber belting manufacturing by the company, besides presenting some general belting information that will be of service. For more than 50 years the New Jersey Company has been manufacturing belting, and in producing its specialty only the best materials, machinery and workmanship are used.

Dumping Wagons for South America.

As indicating the wide popularity of the dumping wagons manufactured by the Watson Wagon Co. may be mentioned a recent shipment from the company's plant at Canastota, N. Y. This shipment included a number of dumping wagons purchased by Frederic Boillat of Buenos Ayres. It was taken by cable and given complete attention without the necessity of correspondence. The company has a large modern plant and finds the demand for its wagons increasing this year. It sends its product to all parts of the world.

Alternating-Current Information.

Circular 1502 issued by the Westinghouse Electric & Manufacturing Co., Pittsburgh, Pa., contains much valuable information on alternating-current distribution covering transformers, lightning arresters, insulators, crossarms, etc. Considerable space is devoted to underground and overhead construction applicable to congested and scattered districts. There is also given information on potential regulating systems. The circular contains 52 pages of information of value to central station men or anyone connected in any way with the distribution of power by alternating-current lines.

An Electric Toaster Stove.

A folder has been issued to describe an electric toaster stove. This is an entirely new product and presents an excellent article for the modern American home where breakfast is always prepared and eaten in the shortest time allowable. The toaster permits the preparation of a large part of the breakfast directly at the table, so that toast, eggs, coffee, griddle cakes, a steak if desired, and numerous other articles may all be served "piping hot" right off the griddle. The cost is small, but the service excellent. The Westinghouse Electric & Manufacturing Co. of Pittsburgh manufactures this toaster.

Large Size Coupled Type Generators.

Conditions frequently arise in the design of alternating-current power stations under which it is impracticable to have the prime mover mounted on the same shaft with the generator. In order to meet these conditions the large sizes of coupled-type generators have been developed. Machines of this class are described in Bulletin No. 114 recently issued by the Crocker-Wheeler Company, Amherst, N. J. This company, one of the oldest manufacturers of electric dynamos and motors in the country, supplies alternating-current generators with patent features that make possible successful parallel operation even under the most difficult conditions. The bulletin contains interesting and valuable engineering information.

The First Rateau Regenerator.

It is of interest to state that the Western Electric Co. of Hawthorne, Chicago, Ill., and other cities has issued an illustrated pamphlet describing the first Rateau regenerator installed in America. This pamphlet contains description and test of the Rateau low-pressure turbine system at the works of the International Harvester Co. in Chicago. It is a reprint of an article which appeared in Power some time ago, the author being F. G. Gaesche. Notwithstanding the success of many European installations, American iron and steel manufacturers have been tardy in adopting this means of reducing the cost of operating rolling mills, especially those of the reversing type, and Mr. Gaesche's article is of value and interest.

Succeeds James S. Barron.

The Barron & Cole Company, 127 Franklin St., New York, has been incorporated to succeed James S. Barron, who for two years has been Eastern and export agent for the Twentieth Century Grader and sole agent for the Peebles pick-up hand sweeper. The company announces it is in a position to quote on contractors' supplies and equipments of all sorts. It is now Eastern headquarters for the Petrolithic Road Co. of Los Angeles, Cal., and can supply rolling tampers, oil-sprinkling wagons and gang rooter plows. It is also headquarters for Nims concrete machinery. Special attention is called to the fact that the Nims measuring machine can be supplied for use with any type of mixer, and is claimed to double the capacity of any mixer. Parker U. Cole is president and sales manager and James S. Barron is treasurer and general manager of the Barron & Cole Company.

Zimmerman Improvements to Cost \$20,000.

One of the well-known manufacturers is the Zimmerman Steel Co., which finds the demand for its Monarch grinders, scales, feed grinders, etc., increasing to such an extent that it is necessary to enlarge the plant at Lone Tree, Iowa. The management will expend \$20,000 to improve its foundry and scute plant this year. It will erect a 72x115-foot foundry, all materials for construction having been purchased. In this building there will be installed a complete modern equipment operated by electricity and compressed air. The equipment will include a 10-ton electric travelling crane, laboratory for chemical and mechanical tests, a 15-ton cupola for gray iron, a cupola for steel, another for steel converting, etc. Last season the company exported its stamp-pullers to 23 different foreign countries, besides making shipments to all parts of the United States. Mr. Zimmerman will sail for Europe in June, and will visit his company's representatives in Germany, Austria, Russia and other countries.

Metaline for Minimizing Friction.

People who are concerned with the minimizing of friction are advised that information of interest to them is contained in a folder published by the North American Metaline Co. This folder tells about Metaline, which the company manufactures of metallic oxides and other substances reduced to an impalpable powder and solidified in hardened steel molds under great pressure

into short-length "plugs" 3-16, $\frac{1}{4}$ and 5-16 of an inch in diameter. The folder says, in part: "The mode of application is to make a divided bushing of 'gun-metal bronze,' 'phosphor bronze' or 'composition metal' of a good quality, close, fine grained and free from blowholes (steel, cast iron, Babbitt or similar metals are more or less objectionable), machined to required dimensions, the two halves separated and holes drilled into the bearing surface—not all the way through the wall of the bushing—into which the Metaline plugs are tightly fitted and then filed, finished flush with the bearing surface, care being taken to see that the layout or spacing of the plugs is such that they will overlap or break joints, particularly on the line of motion." The North American Metaline Co., R. W. Rhoades & Co., lessees, sole and exclusive manufacturers, is located at 64 West Avenue, Long Island City, N. Y.

The Southern Steamship Co., according to a report from New Orleans, has made arrangements to establish a steamship service between New Orleans and Philadelphia on June 1. The company already operates lines between Philadelphia and Charleston and Philadelphia, Jacksonville, Key West and Tampa.

FINANCIAL NEWS.

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., May 26.

Trading continued brisk in the Baltimore stock market during the past week, but there was not quite so much activity as in the next preceding week. Prices were generally at nearly the best figures lately recorded.

In the trading United Railways common sold at 12 $\frac{1}{4}$; do, trust certificates, 12 $\frac{1}{2}$; the income bonds from 58 $\frac{1}{4}$ to 58 $\frac{3}{4}$; the funding 5s from 80 $\frac{1}{2}$ to 81; do, scrip, 81; United 4s, 87 $\frac{1}{2}$; Consolidated Gas, Electric Light & Power common, 42 $\frac{1}{2}$ to 41; do, preferred, 88; do, 4 $\frac{1}{2}$ s, 85 $\frac{1}{2}$ to 85 $\frac{3}{4}$; Consolidated Gas 6s, 101 $\frac{1}{4}$ to 101 $\frac{3}{4}$; do, 4 $\frac{1}{2}$ s, 95 $\frac{1}{4}$ to 96; Seaboard Air Line common, 18; Seaboard Company common, 21 to 20 $\frac{1}{2}$; Seaboard Company first preferred, 72 to 71; do, second preferred, 40 $\frac{1}{2}$ to 40; Seaboard 4s, 85 to 84 $\frac{1}{2}$, reacting to 84 $\frac{1}{2}$; do, three-year 5s, 99 $\frac{1}{2}$ to 99 $\frac{3}{4}$; do, 10-year 5s, 99 $\frac{1}{2}$ to 99 $\frac{3}{4}$; Consolidated Cotton Duck, 7; do, preferred, 24%; Mt. Vernon-Woodberry Cotton Duck 5s, 82 $\frac{1}{4}$ to 82 $\frac{3}{4}$; G.-B.-S. Brewing 1st, 41 $\frac{1}{4}$.

Bank stock sold as follows: Merchants', 170; Howard, 13 $\frac{1}{2}$; Maryland, 20 $\frac{1}{2}$ to 20; Marine, 41; Towson National, 235; Citizens', 39 $\frac{1}{2}$.

American Bonding sold at 77 $\frac{1}{2}$; Maryland Casualty, 93 $\frac{1}{2}$ to 93; Baltimore Trust, 310; Continental Trust, 218 to 219; International Trust, 140; Fidelity & Deposit, 158 $\frac{1}{2}$ to 158; United States Fidelity & Guaranty, 123 to 123 $\frac{1}{2}$.

Other securities were traded in thus: Georgia & Florida Railway common, 9; do, preferred, 18; Western Maryland Railroad stock, 12 $\frac{1}{2}$ to 10; do, 4s, 85 $\frac{1}{4}$; Consolidation Coal, 94 to 91; Houston Oil common, 9; do, preferred, 40 to 41; Baltimore, Sparrows Point & Chesapeake 4 $\frac{1}{2}$ s, 92 $\frac{1}{2}$ to 94; Carolina Central 4s, 94 $\frac{1}{2}$ to 95; Georgia & Alabama Consolidated 5s, 105 $\frac{1}{2}$ to 105; Norfolk & Portsmouth Traction 5s, 87; Norfolk Railway & Light 5s, 98 $\frac{3}{4}$ to 98 $\frac{1}{2}$; Savannah, Florida & Western 6s, 128 $\frac{1}{2}$; Baltimore City 3 $\frac{1}{2}$ s, 1980, 94 $\frac{1}{2}$ to 94 $\frac{3}{4}$; do, do, 1930, 100 $\frac{1}{4}$ to 102; do, do, 1940, 100 $\frac{1}{2}$; Fairmont Coal 1st 5s, 96 $\frac{1}{2}$ to 98; Pittsburgh-Allegany Telephone 5s, 84 $\frac{1}{2}$; Atlantic Coast Line of Connecticut, 285; Anacostia & Potomac 5s, guaranteed, 105 $\frac{1}{2}$ to 106; Colorado Southern 4s, 98; Maryland Electric 5s, 94 $\frac{1}{2}$ to 94 $\frac{3}{4}$; Maryland Telephone 1st 5s, 99 $\frac{1}{2}$; Charleston City Railway 5s, 104 $\frac{1}{2}$; Maryland & Pennsylvania 1st 4s, 92; Baltimore Electric 5s, stamped, 91 to 91 $\frac{1}{2}$; Anacostia & Potomac 5s, 103 $\frac{1}{2}$ to 103 $\frac{3}{4}$; Baltimore City Passenger 4 $\frac{1}{2}$ s, 100; City & Suburban (Washington) 5s, 104 $\frac{1}{2}$; Georgia, Carolina & Northern 5s, 106; Maryland-Pennsylvania incomes, 61 $\frac{1}{2}$; Charleston Consolidated Electric 5s, 91 $\frac{1}{2}$; Memphis Street Railway 5s, 97; Northern Central Railway stock, 106 $\frac{1}{2}$; Atlantic

Coast Line new 4s, certificates, 84 $\frac{1}{2}$ to 84 $\frac{3}{4}$; Washington, Baltimore & Annapolis 5s, 70; Virginia new 3s, 92 $\frac{1}{2}$; Atlantic Coast Line Consolidated 4s, 90 $\frac{1}{2}$; Detroit United 4 $\frac{1}{2}$ s, 82 $\frac{1}{2}$; Norfolk & Portsmouth Traction stock, 21 $\frac{1}{4}$; Charleston & Western Carolina 5s, 109 $\frac{1}{2}$; Baltimore Brick common, 3; Lake Roland Elevated 5s, 115; West Virginia Central 6s, 102 $\frac{1}{2}$; Consolidation Coal scrip, 91; Alabama Consolidated Coal & Iron 5s, 84; Georgia Southern & Florida 5s, 10 $\frac{1}{4}$; Macon Railway & Light 5s, 96; Baltimore City 3 $\frac{1}{2}$ s, 1936, 102.

SECURITIES AT BALTIMORE.**Last Quotations for the Week Ended May 26, 1909.**

Railroad Stocks.	Par.	Bid.	Asked.
Atlanta & Charlotte.....	100	185	...
Atlantic Coast of Conn.....	100	244	250
Georgia Sou. & Fla.....	100	29	40
Georgia Sou. & Fla. 1st Pfd.....	100	93	96
Georgia Sou. & Fla. 2d Pfd.....	100	...	80
Seaboard Company Common.....	100	29	21
Seaboard Company 1st Pfd.....	100	38	41
Seaboard Company 2d Pfd.....	100	...	11
United Ry. & Elec. Co.....	50	12	12 $\frac{1}{2}$
Western Maryland.....	50	9%	10

Bank Stocks.

Bank Stocks.	Calvert Bank.....	50	61	...
Citizens' National Bank.....	10	39	40	
First National Bank.....	100	145		
German-American Bank.....	100	116		
Maryland National Bank.....	20	19 $\frac{1}{2}$	20 $\frac{1}{2}$	
National Bank of Baltimore.....	100	124		
National Bank of Commerce.....	15	25	27	
National Exchange Bank.....	100	160		
National Howard Bank.....	10	13	15	
National Marine Bank.....	30	41		
National Mechanics' Bank.....	10	27	29	
National Union Bank of Md.....	100	125 $\frac{1}{2}$	125	
Second National Bank.....	100	191		
Western National Bank.....	20	35 $\frac{1}{2}$	35	

Trust, Fidelity and Casualty Stocks.

Trust, Fidelity and Casualty Stocks.	American Bonding Co.....	25	77 $\frac{1}{2}$	80
Continental Trust.....	100	218	220	
Fidelity & Deposit.....	50	157 $\frac{1}{2}$	159	
Fidelity Trust.....	100	212	230	
International Trust.....	100	136	140 $\frac{1}{2}$	
Maryland Casualty.....	25	90	95	
Mercantile Trust & Deposit.....	50	149	152	
Union Trust.....	50	79	71	
U. S. Fidelity & Guaranty.....	100	123	124	

Miscellaneous Stocks.

Miscellaneous Stocks.	Ala. Con. Coal & Iron.....	100	30	...
Ala. Con. Coal & Iron Pfd.....	100	69	70	
Con. Cotton Duck Common.....	50	24 $\frac{1}{2}$	25	
Con. Cotton Duck Pfd.....	50	49	42	
Con. Gas, Elec. L. & P. Com.....	100	87 $\frac{1}{2}$	88	
Con. Gas, Elec. L. & P. Pfd.....	100	91	93	
Consolidation Coal.....	100	103 $\frac{1}{2}$	104	
G.-B.-S. Brewing Co.....	100	21 $\frac{1}{2}$	28 $\frac{1}{2}$	
Georges Creek Coal.....	100	90	100	
Mer. & Miners' Trans. Co.....	100	62 $\frac{1}{2}$	62 $\frac{3}{4}$	
Somerset Conf.....	100	35	35	

Railroad Bonds.

Railroad Bonds.	Atlanta & Charlotte Ext. 4s, 1952.....	100	...
Atlanta Coast Line Int. 4s, 1952.....	...	97	
Atlanta Coast Line new 4s, Cfrs.....	...	84 $\frac{1}{2}$	
At. Coast L. Com. 4s, 1952.....	88	90	
Balto. & Harrisburg Ext. 5s, 1938.....	105	106	
Balto. & Harrisburg Ext. 5s, 1938.....	104	106	
Carolina Central 4s, 1949.....	...	94 $\frac{1}{2}$	95
Charlotte, Col. & Aug. 1st 5s, 1910.....	111	110	
Charlotte, Col. & Aug. 7s, 1910.....	107 $\frac{1}{2}$	107 $\frac{1}{2}$	
Col. & Green, 1st 5s, 1916.....	109 $\frac{1}{2}$	110	
Georgia & Alabama 5s, 1943.....	104 $\frac{1}{2}$	105 $\frac{1}{2}$	
Georgia, Car. & North, 1st 5s, 1929.....	105 $\frac{1}{2}$	105 $\frac{1}{2}$	
Georgia Pacific 1st 5s, 1922.....	115	116	
Georgia South. & Fla., 1st 5s, 1945.....	110	110 $\frac{1}{2}$	
Piedmont & Gulf, 1st 5s, 1911.....	10		

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending May 24.

Bid.	Asked.
Abbeville Cotton Mills (S. C.)	75
Aiken Mfg. Co. (S. C.)	85
American Spinning Co. (S. C.)	145 150
Anderson Cotton Mills (S. C.)	55 58½
Arkwright Mills (S. C.)	100 105
Augusta Factory (Ga.)	65 70
Avondale Mills (Ala.)	115 125
Belton Mills (S. C.)	115 121
Bibb Mfg. Co. (Ga.)	114
Brandon Mills (S. C.)	145
Cabarrus Cotton Mills (N. C.)	120 131
Cadwick-Hoskins Mfg. Co. (N.C.)	96
Cadwick-Hoskins Mfg. Co. (N.C.) Pfd.	100 102
Chiquita Mfg. Co. (S. C.)	137½
Clifton Mfg. Co. (S. C.)	105
Clifton Mfg. Co. (S. C.) Pfd.	99 101
Clinton Cotton Mills (S. C.)	105
Columbus Mfg. Co. (Ga.)	98
Courtenay Mfg. Co. (S. C.)	97 100
Dallas Mfg. Co. (Ala.)	95 105
Darlington Mfg. Co. (S. C.)	70 75
Drayton Mfg. Co. (S. C.)	100
Eagle & Phenix Mills (Ga.)	135
Easley Cotton Mills (S. C.)	150 160
Enoree Mfg. Co. (S. C.)	58 65
Enoree Mfg. Co. (S. C.) Pfd.	90 94½
Enterprise Mfg. Co. (Ga.)	82 90
Exposition Cotton Mills (Ga.)	240
Gaffney Mfg. Co. (S. C.)	75½
Gainesville Cotton Mills (Ga.)	55
Granby Cot. Mills (S. C.) 1st Pfd.	50
Graniteville Mfg. Co. (S. C.)	160 162
Greenwood Cotton Mills (S. C.)	67½
Grendel Mills (S. C.)	114 118
Henrietta Mills (N. C.)	160 175
King Mfg. Co. John B. (Ga.)	95 100
Lancaster Cotton Mills (S. C.)	125 146
Lancaster Cot. Mills (S. C.) Pfd.	95 96
Langley Mfg. Co. (S. C.)	96
Laurens Cotton Mills (S. C.)	137½
Limestone Mills (S. C.)	140 150
Lockhart Mills (S. C.)	78 85
Lockhart Mills (S. C.) Pfd.	96
Loray Mills (N. C.) Pfd.	90 98
Marlboro Cotton Mills (S. C.)	80 83
Mayo Mills (N. C.)	165 185
Mills Mfg. Co. (S. C.)	105
Mills Mfg. Co. (S. C.) Pfd.	109
Monaghan Mills (S. C.)	110 115
Monarch Cotton Mills (S. C.)	100 102
Newberry Cotton Mills (S. C.)	130 140
Norris Cotton Mills (S. C.)	115 120
Olympia Cot. Mills (S. C.) 1st Pfd.	78 87½
Orangeburg Mfg. Co. (S. C.) Pfd.	80 98
Orr Cotton Mills (S. C.)	107½ 108
Pacolet Mfg. Co. (S. C.)	120 136
Pacolet Mfg. Co. (S. C.) Pfd.	100 102½
Pelzer Mfg. Co. (S. C.)	150 160
Piedmont Mfg. Co. (S. C.)	172 175
Poe Mfg. Co. (S. C.)	140
Richland Cot. Mills (S. C.) 1st Pfd.	50
Raleigh Cotton Mills (S. C.)	100
Roanoke Mills (N. C.)	160
Saxon Mills (S. C.)	122 125
Sibley Mfg. Co. (Ga.)	62½
Spartan Mills (S. C.)	130 140
Springdale Mills (S. C.)	100
Tucapan Mills (S. C.)	225
Trion Mfg. Co. (Ga.)	140
Union-Buffalo Mills (S. C.) 1st Pfd.	58½ 65
Victor Mfg. Co. (S. C.)	120 125
Warren Mfg. Co. (S. C.)	93½ 95
Warren Mfg. Co. (S. C.) Pfd.	106
Washington Mills (Va.)	28 30
Washington Mills (Va.) Pfd.	106 109
Whitney Mfg. Co. (S. C.)	140
Williamson Mills (S. C.)	110
Wiscasset Mills (N. C.)	125 135
Woodruff Cotton Mills (S. C.)	126 130
Woodside Cotton Mills (S. C.)	95 101
Woodside Cot. Mills (S. C.) Pfd.	95 99½

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending May 24.

Bid.	Asked.
Abbeville Cotton Mills (S. C.)	70
Aiken Mfg. Co. (S. C.)	82
American Spinning Co. (S. C.)	145 150
Anderson Cotton Mills (S. C.)	57 61
Arcadia Mills (S. C.)	94
Arkwright Cotton Mills (S. C.)	100 105
Augusta Factory (Ga.)	55 70
Avondale Mills (Ala.)	110 125
Belton Mills (S. C.)	116
Brandon Mills (S. C.)	145
Cabarrus Cotton Mills (N. C.)	120 130
Cadwick-Hoskins Mfg. Co. (N.C.) Pfd.	103
Chiquita Mfg. Co. (S. C.)	145
Clifton Mfg. Co. (S. C.)	107
Clifton Mfg. Co. (S. C.) Pfd.	99 103
Clinton Cotton Mills (S. C.)	105
Columbus Mfg. Co. (Ga.)	98
Converse Co. D. E. (S. C.)	112
Courtenay Mfg. Co. (S. C.)	97
Dallas Mfg. Co. (Ala.)	99
Darlington Mfg. Co. (S. C.)	70 75
Drayton Mills (S. C.)	100
Eagle & Phenix Mills (Ga.)	120 137
Easley Cotton Mills (S. C.)	152
Enoree Mfg. Co. (S. C.)	59 65
Enoree Mfg. Co. (S. C.) Pfd.	100
Enterprise Mfg. Co. (Ga.)	82 90
Exposition Cotton Mills (Ga.)	240
Gaffney Mfg. Co. (S. C.)	73
Gainesville Cotton Mills (Ga.)	55
Granby Cot. Mills (S. C.) 1st Pfd.	45
Graniteville Mfg. Co. (S. C.)	160 165
Greenwood Cotton Mills (S. C.)	65
Grendel Mills (S. C.)	100 118
Hartsville Cotton Mill (S. C.)	122
Henrietta Mills (N. C.)	105 110
Inman Mills (S. C.)	110 125
Lancaster Cot. Mills (S. C.) Pfd.	91 96
Langly Mfg. Co. (S. C.)	91 96
Laurens Mills (S. C.)	125 130
Limestone Mills (S. C.)	142
Lockhart Mills (S. C.)	78 82
Lockhart Mills (S. C.) Pfd.	95 100
Loray Cotton Mills (N. C.) Pfd.	94 98
Marlboro Cotton Mills (S. C.)	80
Mills Mfg. Co. (S. C.)	100
Mollohon Mfg. Co. (S. C.)	99 105
Monaghan Mills (S. C.)	115
Monarch Cotton Mills (S. C.)	101 105
Newberry Cotton Mills (S. C.)	145
Ninety-Six Cotton Mills (S. C.)	115
Norris Cotton Mills (S. C.)	120
Odell Mfg. Co. (N. C.)	90
Olympia Cotton Mills (S. C.)	68

MANUFACTURERS' RECORD.

Bamberg, S. C.—The Young Men's Building and Loan Association is said to be the title of the new concern being organized by W. A. Klauber and others.

Bartlesville, Okla.—The Nitro Investment Co., capital \$100,000, has been incorporated by C. H. Brown, R. B. Benedict and S. H. Ferguson.

Bay, Ark.—The Bank of Bay has filed articles of incorporation; capital \$20,000; directors, Dr. J. E. Crawford, president; J. S. Elder, vice-president; J. E. Parr, secretary and treasurer; S. T. Ray, H. W. Hall and J. N. Fielder.

Belair, Md.—The Farmers and Merchants' National Bank of Belair, capital \$25,000, has been approved. The organizers are John L. G. Lee of Baltimore, Md.; John A. Robinson, W. E. Robinson, William A. Smith and G. Gover Shutt.

Cary, N. C.—Official: Bank of Cary incorporated; capital \$5000; incorporators, F. R. Gray, president; J. M. Templeton, vice-president; N. C. Hines, cashier, and H. W. Jackson, W. H. Grimes, J. M. Hilliard and C. R. Scott, directors. Press reports state business will begin about June 1.

Chincoteague Island, Va.—Official: Bank of Chincoteague incorporated; capital \$25,000; J. G. Townsend, president; D. J. Whealton and John L. Anderson, vice-presidents; Daniel Jeffries, cashier, and Ralph H. Anderton, assistant cashier.

Colbert, Okla.—Incorporated: Colbert State Bank, capital \$15,000; W. H. McCarley, president, and T. Hamilton, cashier.

Dallas, Texas.—Official: The Metropolitan Investment Co. chartered and incorporated; capital \$5000, fully paid in; J. A. Stephenson, president; N. H. Wright, vice-president, and J. H. Power, secretary.

Dardanelle, Ark.—The Farmers' Banking & Trust Co., capital \$50,000, is being organized by A. S. McCarroll, Dr. C. C. Sims, Roscoe Pierce, M. D. Howell, W. L. Lee, M. C. Catlett and others.

Denton, Texas.—A State bank, to be capitalized at \$25,000 or \$50,000, is reported being organized by Arthur P. Dugan and Joe L. Blewett of the Denton Trust Co.

Gerster, Mo.—Incorporated: Bank of Gerster; capital \$10,000; directors, F. S. Johnndron, John Dawson, J. E. Perkins and B. M. Terry of Gerster, S. A. Barnett of Clinton and J. F. Shockley of Collins.

Hazel, Ark.—A \$50,000 capital bank is reported being organized. Harvey E. L. McCullum, secretary-treasurer Board of Trade, may be able to give information.

Holland, Texas.—The First National Bank has made application for a charter; capital \$25,000; directors, W. S. Reed, V. E. H. Reed, J. W. Sellers, N. B. Vernon, W. L. Armstrong, E. R. Nunnalle and James Markham.

Hubbard, Texas.—The Hubbard City State Bank is reported organized to take over the Farmers' National Bank. J. M. Johnson, Jr., is president; E. Jarvis, vice-president, and C. R. Mayfield, cashier.

Hydro, Okla.—The Farmers and Merchants' Bank is reported organized with \$12,500 capital; directors, C. A. Galloway, president; W. H. Collins, vice-president, and M. S. Foster, cashier; H. E. Lemons, S. H. Bany, C. A. Chambers and P. Breckinridge.

Kansas City, Mo.—Official: The Central States Life Insurance Co. incorporated; capital \$30,000, surplus \$450,000. Officers not yet elected.

Learey, Ga.—The Bank of Learey has applied for a charter; capital \$25,000; organizers, J. E. Toole, R. W. Hicks, R. M. Jordan, Homer Carson and Harper Daniel.

Lockridge, Okla.—The Farmers' Guaranty Bank of Lockridge, capital \$10,000,

has been chartered by L. C. West of Mountain View, P. Primm and I. W. Gray of Lockridge.

Louisville, Ky.—The Tobacco Hail Insurance Co., capital \$50,000, with \$25,000 surplus, has been organized by Harry Weissinger, Muir Weissinger, William May and Rush Watkins of Louisville, George Casperke, R. P. Shacklett and J. R. Willett of Brandenburg, C. B. Sullivan of Versailles, W. D. Blackwell of Greenville and others.

Mansfield, La.—Reported that Will Head of Arcadia, La., is planning to open new State bank.

Murphy, N. C.—Official: The First National Bank incorporated; capital \$25,000, surplus \$5000; organizers, L. E. Bayliss, A. B. Dickey, John E. Fain and C. E. Wood, all of Murphy.

Nashville, Tenn.—The firm of John T. Landis & Co., capital \$1,000,000, is reported chartered under the laws of New Jersey to do a brokerage and banking business. John T. Landis is president; Lulan Landis, vice-president, and J. Roy Boone, secretary and treasurer.

Nashville, Tenn.—The Hermitage National Bank will, it is stated, begin business about July 1 with Hon. Frank Dibrell, president; L. M. Jackson, first vice-president; W. T. Dozier, Fayetteville, second vice-president, and N. F. Chears of Spring Hill, cashier. The bank, which is capitalized at \$300,000, has been approved, and the organizers are R. J. Montgomery of Nashville, Tenn.; J. P. Miller, R. W. Comer, B. P. Sheppard and V. M. Lewis.

New Orleans, La.—The Gregory, Macmurd & Gregory Company, capital \$20,000, has filed articles of incorporation to do a general insurance and brokerage business; F. C. Gregory and others, incorporators.

Maud, Texas.—The Maud State Bank, capital \$15,000, has been incorporated by W. W. White, L. F. Harris, J. C. Morgan and W. Lewis Tapp.

Oklahoma City, Okla.—The Bankers' Trust Co., capital \$500,000, will, it is stated, begin business about June 15 with H. C. Pickett vice-president.

Oklahoma City, Okla.—Chartered: Reliable Mutual Hail Insurance Co.; guarantee fund, \$10,000; directors, A. H. Geisler, John M. Geisler and J. H. Geisler of Carmen, W. H. Sweatt of Helena and G. O. Fenimore of Oklahoma City.

Okmulgee, Okla.—Chartered: Okmulgee State Bank; capital \$50,000; incorporators, Walter W. Morton, R. D. Carpenter and Lee A. Voorhees.

Ola, Ark.—Official: The Atlas Insurance Co. chartered; capital \$200,000; incorporators, O. J. Harkey, W. T. Blunt and A. L. George of Ola, Ark.; Dr. J. N. George of Birta, Ark., and S. R. George, Magazine, Ark.

Ola, Ark.—Chartered: Atlas Insurance Co.; capital \$200,000. O. J. Harkey is president; S. R. George, first vice-president; J. N. George, second vice-president; A. L. George, secretary, and W. T. Blunt, treasurer.

Paducah, Texas.—Approved: First National Bank; capital \$300,000; organizers, John D. Bird, M. H. Barrett, B. F. Denny, H. V. Bird and Fred Grayson.

Pawhuska, Okla.—Official: The Pawhuska Security Co. incorporated; capital \$40,000; Chas. N. Poudom, president; H. H. Brenner, vice-president; Arthur T. Woodward, secretary, and Arthur N. Ruble, treasurer; directors, Chas. N. Poudom, Wm. T. Leahy, Arthur N. Ruble, Thos. B. Smith, J. T. M. Johnston, L. S. Parker, H. H. Brenner and Arthur T. Woodward.

Pocasset, Okla.—Official: First State

[For ADDITIONAL FINANCIAL NEWS, SEE PAGES 76 AND 77.]

New Corporations.

Amarillo, Texas.—The Sadler Mortgage Loan Co., capital \$50,000, incorporated by James F. Sadler, Jr., M. C. LeMaster and P. E. Roesen.

MANUFACTURERS' RECORD.

Bank of Pocasset chartered; capital \$10,000; Geo. K. Williams, president, Oklahoma City; Geo. L. Rose, vice-president, Lawton, and Jeff Potter, cashier, Pocasset.

Redwood, Miss.—The Securities Co. has filed articles of incorporation; capital \$10,000; incorporators, J. H. Short, N. N. Hirsh and others.

Ridgeway, Va.—The Bank of Ridgeway, capital \$50,000 to \$25,000, has been organized with Judge N. E. Smith, president, and J. P. Garrett and George O. Jones, vice-presidents; M. E. Williams, formerly of Abingdon, cashier.

Rock Hill, S. C.—Official: The People's National Bank of Rock Hill has begun business; capital \$100,000; T. L. Johnston, president; Sidney Friedheim and J. B. Johnson, vice-presidents; C. L. Cobb, cashier; John R. London, assistant cashier.

Rock Hill, S. C.—Official: The People's Trust Co., capital \$25,000, has begun business; J. B. Johnson, president; R. E. Barron, vice-president, and C. L. Cobb, secretary and treasurer.

Rosenberg, Texas.—Chartered: Rosenberg State Bank; capital \$10,000; incorporators, J. S. Rice, A. Meininger and J. F. Winstead.

Sparrows Point, P. O. Baltimore, Md.—The Sparrows Point Building, Savings and Loan Association is to begin business May 24 with Dr. J. S. Woodward, president; Joseph Blair, vice-president; Dr. G. C. McCormick, secretary; James W. Loftus, treasurer, and Herbert W. Stone, solicitor.

Sycamore, Ga.—E. Toole, cashier of the Georgia Banking Co. of Albany, is reported to have organized a bank with \$25,000 capital at Sycamore; W. D. Founta, president; J. W. Henderson, first vice-president; Dr. C. Walker, second vice-president.

Tignall, Ga.—The Bank of Tignall is reported organized with the following directors: J. A. Moss, president; Boyce Ficklen, Jr., vice-president, and C. D. Bolton, cashier; J. J. Wilkinson, W. J. Adams, T. W. Hill and W. O. Gill.

Waco, Texas.—The First State Bank & Trust Co. incorporated; capital \$100,000; incorporators, E. Rotan, W. B. Brazelton, S. Archenhold, W. J. Neal, Wm. Breusted, W. R. Clifton and W. W. Cameron.

Wichita Falls, Texas.—A \$25,000 State bank is reported organized with Z. B. King, J. C. Tandy and W. H. Frazier of Seymour.

Winston-Salem, N. C.—A \$200,000 national bank is reported being organized.

New Securities.

Ahoskie, N. C.—Bids will be received until noon July 1 by E. J. Gerock, secretary, for \$8000 of 5 per cent. 1-20-year bonds.

Albany, Texas.—Voted: \$20,000 of school-building bonds.

Almeda, Texas.—Almeda Drainage District No. 2 is reported to be arranging to sell \$200,000 of 5 per cent. 10-30-year bonds.

Alva, Texas.—M. M. Falkerson of the Alva Security Bank has been awarded at \$65 premium the \$25,000 of 5 per cent. 10-20-year school-building bonds.

Alvord, Texas.—Voted: \$10,000 of school-building bonds.

Annapolis, Md.—The State Board of Public Works has authorized the sale of \$1,000,000 of 3½ per cent. State road bonds, bids to be opened the latter part of June.

Aspermont, Texas.—July 10 election is to be held to vote on \$45,000 of courthouse and \$5000 of jail repair bonds.

Aspermont, Texas.—June 12 city will vote on \$12,500 of school-building bonds.

Athens, Tenn.—June 5 an election is to

be held in McMinn county to decide question of issuing \$25,000 of pike bonds.

Bainbridge, Ga.—Election to vote on \$115,000 of street, school and City Hall bonds is to be held June 8.

Barstow, Texas.—The Western Drainage Co. of Grand Rapids, Wis., has purchased at par and accrued interest \$50,000 of drainage bonds.

Beaumont, Texas.—The Joe C. Thompson Bond Co. of Dallas has purchased at par \$202,000 of 4½ per cent. 10-40-year refunding bonds.

Bertram, Texas.—Approved: \$15,000 of 5 per cent. 10-40-year school bonds.

Birmingham, Ala.—Jefferson county will vote June 19 on \$600,000 of bonds, \$500,000 being for courthouse and jail at Birmingham and \$100,000 for courthouse and jail at Bessemer. Job Going is president and chairman of Board of Revenue of Jefferson county.

Birmingham, Ala.—The City Council has authorized Frank P. O'Brien, Mayor, to borrow \$150,000 to meet current expenses, \$20,000 being for schools.

Brady, Texas.—July 10 an election is to be held to vote on \$12,000 of McCulloch county jail bonds.

Bramwell, W. Va.—The State Board of Education has purchased at \$2777.78 premium \$25,000 of 6 per cent. street, bridge and refunding bonds.

Canton, Mo.—Reported that an election is to be held to vote on \$22,500 of school bonds.

Canyon, Texas.—An election is soon to be held, it is stated, to vote on \$33,000 of water-works and sewerage bonds.

Chapin, S. C.—Defeated: Election to vote on high-school bonds of district No. 66.

Clairemont, Texas.—The \$7200 of school-building bonds recently voted are 10-40-year 5 per cents.

Cleburne, Texas.—The question of issuing \$500,000 of Johnson county road bonds is reported under consideration.

Coleman, Texas.—An election is to be held to vote on \$20,000 of bonds to purchase an artificial lake.

Commerce, Ga.—June 8 city will vote on \$8000 of sewerage bonds.

Cordelle, Ga.—Reported that city proposes to hold election to vote on school-building bonds.

Corpus Christi, Texas.—Reported that an election is to be held to vote on \$90,000 of water-improvement bonds.

Corpus Christi, Texas.—June 15 election is to be held to vote on \$75,000 of school bonds.

Culpeper, Va.—Voted: \$25,000 of school-building bonds.

Dandridge, Tenn.—Jefferson county is reported to have sold at \$250 premium \$25,000 of refunding bonds.

Denton, Texas.—Reported that election will be held to vote on \$300,000 of road bonds of precinct No. 1.

D'Hanis, Texas.—June 8 election will be held to vote on \$8000 of graded school bonds.

Dothan, Ala.—The MANUFACTURERS' RECORD is informed that the \$65,000 of school, water, light and paving bonds, for which bids are being received by R. W. Lisenby, City Clerk, are 20-year 5 per cents.

Due West, S. C.—E. M. Moreland Company of Charleston, S. C., writes the MANUFACTURERS' RECORD that it has purchased \$11,000 of 5 per cent. 20-year bonds, paying \$11,214.

El Paso, Texas.—The State Board of Education has purchased \$250,000 of road and \$25,000 of jail (El Paso county) 4 per cent. 10-40-year bonds.

Emporia, Va.—Greeneville county has voted \$80,000 of road bonds.

Ensley, Ala.—Voted: \$175,000 of

school, sewer and jail improvement and fire-department bonds.

Fort Worth, Texas.—The question of issuing about \$1,000,000 of road bonds is reported under consideration in Tarrant county. Address The County Good-Roads Association.

Franklin, N. C.—The MANUFACTURERS' RECORD is informed that \$12,000 of 5 per cent. 30-year school bonds have been voted and will be offered for sale in the near future. Address Dr. S. H. Lyle, chairman School Board.

Gainesville, Texas.—The Commissioners of Cooke county have ordered an election for June 26 to vote on \$100,000 of road-improvement bonds.

Galveston, Texas.—E. A. Toebelman is reported to have purchased at 101.375 the \$25,000 of school, \$100,000 of grade-raising and \$125,000 of 4½ per cent. grading, filling and drainage bonds.

Goldsboro, N. C.—June 14 election will be held to vote on \$150,000 of street and sidewalk improvement bonds.

Goliad, Texas.—Henry Shaper, county judge, will receive bids for \$40,000 of Goliad county courthouse bonds.

Gordo, Ala.—Voted: \$6000 of school bonds.

Granbury, Texas.—June 26 election is to be held to vote on \$80,000 of Hood county road-improvement bonds. It is said they will be 10-40-year 4 per cents.

Greenville, N. C.—The Security Savings Bank & Trust Co. of Toledo has purchased at 101.775 and accrued interest \$20,000 of 5 per cent. 5-14-year funding bonds.

Hallettsville, Texas.—Voted: School-building bonds.

Handley, Texas.—The \$20,000 of school-building bonds recently voted are 20-40-year 5 per cents.

Honey Grove, Texas.—The Commissioners' Court of Fannin county has purchased \$2000 of the \$7000 issue of 20-40-year street-improvement bonds at par and 5 per cent. premium. The bonds have been registered.

Houston Heights, Texas.—Reported that about June 1 \$20,000 of school-building bonds will be sold.

Hugo, Okla.—June 22 Choctaw county will vote on \$125,000 of courthouse and jail bonds.

Humble, Texas.—Approved: \$10,000 of school bonds.

Huntsville, Ala.—June 19 a special election is to be held to vote on \$50,000 of 4½ per cent. Madison county pike bonds.

Itasca, Texas.—Voted: \$35,000 of school-building and equipment bonds. They are 40-year 5 per cents.

Joplin, Mo.—Defeated: Election May 11 to vote on sewer bonds.

Kansas City, Mo.—The election to vote on \$3,775,000 4 per cent. 20-year improvement bonds is reported postponed until July 13.

Katy, Texas.—Voted and approved: \$6000 of school-building bonds.

Kenova, W. Va.—May 29 city will vote on \$40,000 of 5 per cent. 30-year street bonds. C. W. Thomson is recorder.

Knox City, Texas.—The State Board of Education has purchased \$16,000 of 5 per cent. 40-year school bonds. They have been approved.

Knoxville, Tenn.—The Merchants' Loan & Trust Co. of Chicago is reported to have purchased at a little more than \$8000 premium \$150,000 of high-school bonds.

Korville, Texas.—Voted and approved: \$3000 of school-building bonds.

Lafollette, Tenn.—The Legislature has authorized Campbell county to issue \$150,000 of pike bonds.

Lakeview, N. C.—The MANUFACTURERS' RECORD is informed that \$15,000 of township bonds are being offered for sale. Address J. R. McQueen.

Laurinburg, N. C.—Woodlin, McNear & Moore of Chicago have been awarded at \$925 premium \$30,000 of 5 per cent. 30-year school-building bonds.

Little Rock, Ark.—The Mercantile Trust Co. of Little Rock is reported to have been awarded \$60,000 of 5½ per cent. street-improvement bonds.

Longview, Texas.—Reported that an election will be held to vote on \$40,000 of street bonds.

Loudon, Tenn.—The election to vote on \$100,000 of Loudon county pike bonds is to be held May 28.

Madison, Fla.—July 6 election is called to vote on \$25,000 of sewerage, water-works and Florida Normal Institute dormitory bonds.

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Madisonville, Ky.—Reported that an election is to be held in June to vote on \$12,500 of high school building bonds.

Madisonville, Tenn.—W. A. Thormley, clerk, writes the MANUFACTURERS' RECORD that the election to vote on Monroe county road bonds will be held September 14.

Manatee, Fla.—Election is to be held June 22 to vote on \$250,000 of Manatee county road bonds. M. C. Davis is chairman Board of County Commissioners.

Marietta, Ga.—Bids will be received until 7 P. M. May 27 for \$80,000 of waterworks and \$30,000 of sewerage 5 per cent. 30-year bonds. Address E. P. Dobbs, Mayor.

Memphis, Tenn.—Lawrence H. Parkhurst of Boston has purchased at a premium of \$41,700 and accrued interest \$1,000,000 of 4 1/4 per cent. 50-year park-improvement bonds.

Mobile, Ala.—Arrangements are reported made to float paving bonds.

Montgomery, Ala.—Lawrence H. Parkhurst of Boston was awarded the \$125,000 of 5 per cent. 10-year paving bonds at 102.71, or \$1027.10 for each \$1000 face value of the issue.

Morgantown, W. Va.—Bids will be received until 8 P. M. June 22 by M. L. Brown, secretary Board of Education, for \$100,000 of 5 per cent. school bonds.

Morristown, Tenn.—June 16 an election is to be held to vote on \$40,000 of sewerage bonds.

Mt. Vernon, Texas.—Approved: \$15,000 of school-building bonds.

Murphy, N. C.—June 5 district No. 1 will vote on \$10,000 of 6 per cent. school-building and site bonds. Ben Posey is chairman Board of County Commissioners.

Newberry, S. C.—Voted: \$40,000 of water and sewer-extension bonds.

New Orleans, La.—Of the \$2,000,000 of public improvement bonds, \$1,000,000 were awarded to eight local banks as follows: Whitney-Central, \$400,000; Whitney Savings, \$100,000; German-American, \$200,000; German-American Savings, \$20,000; People's, \$100,000; Citizens', \$60,000; Morgan State, \$20,000; Commercial Germania, \$100,000. The first seven banks compose a syndicate, their price being par less 6 per cent. commission and plus accrued interest.

Norfolk, Va.—Application is to be made to the City Council by the Seventh Ward Local Board for authority to issue \$60,000 of street-improvement bonds.

Oakland, Md.—The Second National Bank of Cumberland has purchased \$45,000 of 5 per cent. water-works and sewerage bonds at 106.

Oklahoma City, Okla.—McCoy & Co. of New York city have purchased \$400,000 of boulevard and park, \$200,000 sewer-extension, \$150,000 water-department, \$100,000 fire-department and \$35,000 of city jail bonds at \$17,700 premium.

Paris, Tenn.—Frazer & Palmer of Nashville are reported to have recently purchased at par \$40,000 of 5 per cent. 30-year water, light, school and street bonds. Last March McCoy & Co. of Chicago were reported to have purchased \$40,000 of bonds of the same character.

Paris, Texas.—Approved: \$10,000 of public utility, \$10,000 of school-building, \$25,000 of street-improvement, \$10,000 of water-works and \$10,000 of City Hall 4 1/2 per cent. 10-50-year bonds.

Paxville, S. C.—Voted: \$10,000 of school-building bonds. F. S. Geddings is chairman.

Peachtree, N. C.—The MANUFACTURERS' RECORD is informed that bonds for erection of high-school building have been voted. Address H. B. Elliott, secretary.

Petersburg, Tenn.—May 27 vote will be taken on \$4000 of dormitory bonds.

Port Arthur, Texas.—An election is to be called to vote on \$150,000 of drainage bonds.

Pottsboro, Texas.—June 12 an election is to be held to vote on \$6000 of Pottsboro independent school district bonds.

Raleigh, N. C.—Bids will be received until noon June 17 by B. R. Lacy, State Treasurer, for \$500,000 of 4 per cent. 40-year hospital bonds.

Richmond, Va.—Estabrook & Co. of Baltimore have been awarded at par the \$1,500,000 of 4 per cent. sewer, water and school bonds recently authorized.

Ringgold, Texas.—Voted: \$12,000 of school-building bonds.

Riverside, Texas.—Reported that \$8000 of school bonds will probably be issued.

Roscoe, Texas.—Voted: \$6000 of school bonds.

Rosemary, S. C.—Bids will be received until noon June 10 by the board of trustees for \$5000 of 6 per cent. 12-20-year school-building bonds.

San Saba, Texas.—June 12 election will be held in San Saba county to vote on \$75,000 of courthouse and \$72,000 of road bonds.

San Saba, Texas.—June 4 an election is to be held to vote on \$40,000 of school bonds.

San Marcos, Texas.—Approved: \$5000 of 5 per cent. 10-40-year street-improvement bonds.

Savannah, Ga.—Election June 29 to vote on \$300,000 of drainage bonds; interest 4 per cent. Address the Mayor.

Shamrock, Texas.—Election is to be held June 1 to vote on \$20,000 of school-building bonds.

Skiatook, Okla.—Recently voted: \$4000 of fire-apparatus and water bonds.

Snyder, Texas.—Voted: \$25,000 of school-building bonds.

Springfield, Mo.—Defeated: Election May 11 to vote on \$125,000 of school-building bonds.

Springfield, Mo.—Defeated: \$125,000 of school-building bonds.

Staunton, Va.—Augusta county has under consideration \$1,000,000 of road bond issue.

St. Petersburg, Fla.—S. A. Kean & Co. of Chicago have been awarded at \$1125 premium the \$75,000 of 5 per cent. 30-year improvement and school bonds.

Tampa, Fla.—Defeated: Election to vote on \$480,000 of 5 per cent. improvement bonds.

Temple, Texas.—The election to vote on \$100,000 of water-works bonds is to be held June 22.

Thomas, W. Va.—The MANUFACTURERS' RECORD is informed that bids will be received until noon June 26 by Geo. Martin, Mayor, for \$20,000 of 5 per cent. 10-20-year street bonds.

Timpson, Texas.—Voted: \$9000 of 5 per cent. 40-year school-improvement bonds.

Tulsa, Okla.—Ordinances have been passed authorizing the issuing of \$6000 of storage-house, \$25,000 of park, \$20,000 of fire-station, \$20,000 of water-works and \$24,000 of funding 5 per cent. bonds. John O. Mitchell is Mayor.

Tyler, Texas.—Approved: \$600 of schoolhouse Smith county school bonds.

Union, S. C.—Reported that an election will be held to vote on \$20,000 of school-building bonds.

Van Alstyne, Texas.—May 27 an election will be held to vote on \$12,500 of school-building bonds.

Wagoner, Okla.—John Nuveen & Co. of Chicago have been awarded at \$2800 premium, \$250,000 of 4 1/2 per cent. 20-25-year Wagoner county bridge, road, jail and courthouse bonds.

Waycross, Ga.—June 19 an election is to be held to vote on \$36,000 of lighting-plant bonds.

Wichita Falls, Texas.—Voted: \$60,000 of school and \$20,000 of street bonds.

Woodbury, Tenn.—Reported that Cannon county will vote on \$75,000 of road-improvement bonds.

Yukon, Okla.—Notice is given that on May 25 school district No. 27, Canadian county, will vote on \$12,000 of 5 per cent. bonds, and that bids for same will be received on or about this date. F. C. McKinney is clerk.

At Lakeview, N. C.—\$15,000 of township bonds are being offered for sale. *Further particulars will be found in the advertising columns.*

At Raleigh, N. C.—Bids will be received until noon June 17 for \$500,000 of 4 per cent. 40-year North Carolina State bonds. *Further particulars will be found in the advertising columns.*

At Thomas, W. Va.—Bids will be received until noon June 26 for \$20,000 of 5 per cent. 10-20-year street bonds. *Further particulars will be found in the advertising columns.*

At Chester, S. C.—Bids will be received until June 25 for \$26,000 of 4 1/2 per cent. water plant extension and street improvement bonds. *Further particulars will be found in the advertising columns.*

The Farmers and Merchants' Bank of Franklinton, La.—Is reported to have taken possession of its new building.

The Charlotte National Bank at Charlotte, N. C.—Is reported to be doing business in its new home in the Realty Building.

The Bank of Lumberton at Lumberton, N. C.—Has been authorized to increase its capital not less than \$25,000 or more than \$50,000.

The Bank of Spring City, at Spring City, Tenn.—Will, it is reported, be converted into the First National Bank of Spring City.

The First National Bank and the Se-

surity State Bank, both of Sulphur, Okla.—Are reported to have consolidated under the name of the latter institution, with \$65,000 capital. C. J. Webster is president.

Reported that arrangements are completed for the consolidation of the First National Bank with the Central National Bank, both of Frederick, Md., to take effect in about 60 days. Emory L. Coblenz is president of the Central National Bank.

An address made by Col. Robert J. Lowry, president of the Lowry National Bank of Atlanta, Ga., before Group Four of the Georgia State Bankers' Association at Columbus, Ga., April 26 has been printed in pamphlet form. It contains valuable suggestions to Southern manufacturers and planters with reference to the tariff, the establishment of cotton warehouses and the use of warehouse receipts as collateral.

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	Atlas Machine Co.	111	Columbian Iron Works.	13	Foos Mfg. Co.	115	Kirkpatrick, Fred.	10	Schaefer, George G.	23
	Atlas Portland Cement Co.	110	Columbian Iron Works.	13	Foos Mfg. Co.	115	Kirkpatrick, Fred.	10	Schaefer, George G.	23
	Audit Co. of New York.	77	Columbus Iron Works.	13	Foos Mfg. Co.	115	Kirkpatrick, Fred.	10	Schaefer, George G.	23
	Austin Mfg. Co.	38	Columbus Iron Works.	13	Foos Mfg. Co.	115	Kirkpatrick, Fred.	10	Schaefer, George G.	23
	Austin-Western Co., Ltd., The.	103	Columbus Iron Works.	13	Foos Mfg. Co.	115	Kirkpatrick, Fred.	10	Schaefer, George G.	23
	Avery Co.	102	Columbus Iron Works.	13	Foos Mfg. Co.	115	Kirkpatrick, Fred.	10	Schaefer, George G.	23
B	Babcock & Wilcox Co.	5	Cordessan Rechitt Co.	42	Gaffney Board of Trade.	116	Ober Mfg. Co.	113	Ober Mfg. Co.	113
	Badger & Sons Co., E. B.	115	Cordessan Rechitt Co.	42	Gager Lime & Mfg. Co.	20	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Bailey-Lebby Co.	120	Cordessan Rechitt Co.	42	Genuine Oil Co.	110	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baldwin & Co., L. A.	85	Cordessan Rechitt Co.	42	Genuine Oil Co.	110	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baldwin Equip. & Supply Co.	90	Cordessan Rechitt Co.	42	Genuine Oil Co.	110	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baldwin Locomotive Works.	95	Cordessan Rechitt Co.	42	Genuine Oil Co.	110	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Ball Engine Co.	4	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baltimore Audit Co.	77	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baltimore Belting Co.	32	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baltimore Bridge Co.	32	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baltimore Office Supply Co.	76	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baltimore Steam Packet Co.	117	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baltimore Trust & Guarantee Co.	117	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Baltzell, G. L.	81	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Bandy & Myers.	18	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Bank of Richmond.	75	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barber Asphalt Co., A. L.	105	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barber Asphalt Pavings Co.	29	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barber, Harry T.	29	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barker, J. D.	83	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barnard & Lewis Mfg. Co.	111	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barnett & Co., G. H.	120	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barrett Mfg. Co.	87	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barrett & Snow Co., C. O.	10	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Barwood Leather Gasket Mfg. Co.	9	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Bates' Sons, James.	13	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Bell Company, Inc., J. P.	77	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.	113
	Bennett Iron Stamp & Seal Co.	11	Cordessan Rechitt Co.	42	Gibbs Machinery Co.	11	Ober Mfg. Co., James D.	84	Ober Mfg. Co.</td	

